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American Journal of Surgery and Gynecology.

VOLUME XIII. ST. LOUIS, MO., MAY, 1900. NUMBER 11.

APPENDICITIS—A CLINICAL REPORT.

BY EDWIN WALKER, M. D., PH. D., EVANSVILLE, IND.

Surgeon to the Evansville Sanitarium; ex-President of the Indiana State Medical Society.

The cases of appendicitis which I desire to present are quite different in clinical history and each presents some points of interest, but all show the necessity of early operation and the uncertainty of the course of so-called "mild cases."

I took occasion some time since to look up the views of many prominent surgeons in order to ascertain exactly what symptoms or clinical history would positively indicate that a given case was mild or severe. I could find no one who claimed to be able in all cases to judge the gravity of any case, by any symptom or symptoms, nor could I find a definite indication for operation to which any considerable number agreed. While there are many good surgeons who lay down rules to distinguish cases for operation, and those to be let alone, I must confess my own experience has driven me to the conclusion that it is safest to operate on all cases as soon as the diagnosis is made. I say "driven" because for a long time I tried to be "conservative," and at first resented the idea that all cases should be subjected to appendectomy.

The first case I want to report, is one in which the patient was a robust, healthy young man of twenty-three years of age, weighing about 170 pounds, who was taken suddenly with pain in the abdomen. This was very severe in character and required opiates for relief. His temperature rose to 102° and pulse 100. The next day a laxative was given, which operated freely, and during that day the pain was less severe, but still required some opiate, and his temperature ranged from 100° to 101½°. Two days following this his condition was improved, temperature being lower and pulse dropping to about normal. I saw him first in the evening of the third day, when he had a temperature of 100.5°, pulse 80, no pain, but some soreness in the abdomen. An examination of the right iliac region revealed a tumor about the size of a walnut. The patient felt so much better that he considered himself practically convalescent. I told him, however, it was my opinion there was an abscess about the appendix, and that it would be much safer to operate. He was taken to the Sanitarium, and the next morning was placed on the table and an incision was made over the swelling about an inch above Poupart's ligament. The peritoneum was opened and the tumor exposed. It embraced the distal end of the appendix, which was perforated and gangrenous and surrounded by very feeble adhesions. Passing the finger around, these adhesions were slightly broken, and a distinct fecal odor was emitted. (A tube was inoculated from this pus immediately, and afterwards proved to be pure culture of the colon bacillus). I then followed the method of Robert T. Morris, slowly injecting peroxide of hydrogen as the adhesions were broken up. I should judge half an ounce of pus was thus washt out. The peroxide was wiped out, the appendix removed in the usual manner and the stump deprest. It has been my experience in these cases that the pus does infect the abdominal wound, and especially the fat. We, therefore, wiped out thoroly with clean gauze, and then washt the wound (not the peritoneum) with salt solution. The cavity from which the appendix was removed was also wiped out with dry gauze. There was considerable organized tissue about the cecum, and it was not deemed advisable to close it without drainage. I, therefore, took a Morris gauze wick, surrounded by rubber tissue, and placed this exactly over the center of the abscess, which was the stump of the appendix. The wound was closed with silkworm gut sutures. A few buried catgut sutures were placed in the muscles. The suture at the point at which the drain emerged was not tied, and the drain was left in for twenty hours. The dressing was saturated with bloody serum. The temperature then dropt to normal. I then withdrew the drainage and tied the stitch. The next day the temperature rose again, and I could feel tumefaction at the external end of the wound, but not at the location of the drain, and I was sure we had infection at that point. A stitch was removed and an ounce of pus evacuated, accompanied by gas. This pus contained also the colon bacillus.

This is an instructive case in many points. If we had followed the rule laid down by those who claim that so-called mild cases in the first attack should not be operated upon, we would almost surely have had secondary rupture, for the adhesions were very feeble and the pus very virulent. The drainage was very satisfactory in this case, and there was no infection in its track after its removal, the mural abscess being at the outer extremity of the wound. Several drains the depth of the adipose layer between the stitches might have prevented this.

The next case also began as a mild attack. He had had a similar one five years ago, and during the intervening time had experienced no trouble. It was ushered in with the usual pain, slight elevation of temperature, which had existed two days when I saw him. His temperature was ranging from 99° to 101°, pulse from 80 to 90, slight tympanites and tenderness in the region of the appendix, very little actual pain. No tumor could be made out, and deep palpation was not resorted to. An operation was proposed, but declined. Two days more the course was about the same, except that the patient lookt ill, but his pulse and temperature remained the same. After a severe hiccough early in the morning, he was seized with an agonizing pain in the abdomen, which was only partly relieved by a hypodermic injection of morphine. The pulse rose to 120, temperature 103° and the abdomen became quite tympanitic in a short time. As soon as arrangements could be made the operation was done. A foul odor was emitted when the peritoneum was incised, and several ounces of thin, brown fecal fluid was wiped out. The appendix was gangrenous and ript open for about an inch, and was found free from adhesions. No effort at localization had been made. Drainage was used, and for several days his life hung on a thread. The pulse was quick and weak, high temperature and abdomen distended with gas. After careful nursing and attention to the wound for eight weeks he finally recovered. Here we have another so-called "mild case," almost lost by delay.

In the next case we have a similar lesson. This was a young woman who had previously enjoyed good health, excepting dysmenorrhea. While menstruating she was taken with severe, cramping pains in the abdomen, rather more on the right side extending to the back. The right inguinal region was sensitive and muscles tense. There was no tympanites. Temperature was 101° to 102°, pulse 80. She did not look very ill, and from the history I thought it might be due to her menstrual period, and while I was almost sure it was appendicitis. I hesitated in view of the facts and the mildness of the symptoms. On the fourth day all symptoms were worse, and an operation was done. The incision was made far out, because the location of the pain, especially in the back led me to suppose that the appendix was external to the cecum. This proved to be true, and the incision was exactly over the remains of the appendix. This had slought, leaving only a little necrotic tissue behind, and there was a ragged hole in the cecum. As I was cleaning out the "trough" formed by the cecum on the inside and the abdominal wall externally, the liver forming its upper boundary, I felt a fecal concretion just behind the lower margin of the liver. This was forced farther up by unsuccessful attempts to remove it, until it was almost out of reach. With a piece of gauze in a dressing forcep I succeeded in wiping it out. The upper portion of the wound was closed, and the cecum stitcht to the lower end and a gauze wick drain introduced down to the cecal opening, no effort being made to close this. A rubber tube was also introduced to the edge of the liver. The operation was followed by a sharp rise of temperature (105.5°). The next morning the wound was opened and the finger introduced until the liver could be felt. This was raised up, and there was a gush of thin, stinking fluid amounting to about six ounces. A rubber tube was introduced behind the liver. This was followed by another rise of temperature and a swelling of the whole right side of the chest and abdomen. Attempts to remove this by drainage from below were ineffectual and the swelling increast. Detecting fluctuation at the cartilege of the tenth rib, an incision was made and there was a tremendous gush of the same kind of fluid amounting to at least half a gallon. Again the temperature went up, ranging constantly from 103° to 105°. This fluid came from above the liver, and I thought at the time that organ was involved, but from the subsequent course I think this was a mistake. A few days later the patient began to cough. Consolidation of the lower lobe of the right lung was made out. The expectoration was soon the same as that from the wounds in appearance, smell and the same germs were found, and not much later there were farther discharges from the upper opening, and fluids injected into this opening would find their way to the mouth. Then followed a long siege of sepsis, requiring many interferences to

maintain drainage, until after months the patient has still some discharge from the upper opening, altho otherwise well.

This was a case of mixt infection. The colon bacillus and a staphylococcus were found in all the examinations from the wounds and the expectoration. They were cultivated separately in pure cultures.

The lesson in this is the same as the others, an early operation would have saved much, if not all, the trouble.

A NEWER CYSTOSCOPE WITH SUPPLEMENTAL DEVICE FOR URETERAL CATHETERIZATION.

BY J. RILUS EASTMAN, B. S., M. D., INDIANAPOLIS, IND.
Professor of Surgery and Genito-Urinary Diseases, in Central College of Physicians and Surgeons.

During the spring of 1897, the writer was a pupil in the polyclinic of Dr. Leopold Casper in Berlin. Dr. Casper gave at that time, and still gives, private courses in ureteral catheterization, using in these courses the ureteral cystoscope of his own devising, which embodies the two important principles originally enunciated by Nitze, namely, direct local illumination of the bladder and the use of a magnifying optical apparatus to enlarge the picture received thru the instrument, combined with a separate canal provided with a sliding roof for introduction of the ureteral catheter. It is quite necessary that the roof of this second canal thru which the ureteral catheter passes shall be removable in order that the catheter may be releast and left coursing thru the urethra and bladder into the ureter, the cystoscope having been withdrawn.

In order that the roof of this ureteral canal might be removed, Casper in devising his instrument had found it necessary to deflect the optical apparatus, the calibre of which was considerably larger than that of the cystoscope tubus plus catheter canal, from the longitudinal axis line of the cystoscopic tube (see Fig. 1). This deflection, as will be seen by reference to Fig. 1, made necessary the use of two extra prisms. It is well known that a perfectly refracting prism does not exist, all consuming more or less of the light which enters them. Each of the three right-angled prisms in the Casper ureteral cystoscope consumes approximately 20 per cent of the light as it passes thru, leaving only 40 per cent to be received at the operator's eye. It is very plain that altho the illumination of the bladder be quite perfect, the operator has the benefit of only 40 per cent of this illumination when inspecting the bladder thru the Casper instrument. In the case of Nitze's original simple cystoscope containing only one right-angled prism from the hypotheneuse of which the picture is reflected down the tubus of the instrument to the operator's eye, only 20 per cent of the light is consumed, therefore, the bladder during its use (the electric lamps being of equal strength) appears to be twice as brilliantly illuminated as when examined thru the instrument of Casper.

Having chronicled these impressions, the writer conceived the idea that a simple cystoscope might be taken, its optical apparatus reduced in calibre and a separate canal so attacht that its roof might be withdrawn over the optical apparatus, the latter lying in the long axis of the cystoscopic tube and making the use of the two extra light-consuming prisms unnecessary. (See Fig. 2.) At the time of the writer's service in his clinic, Dr. Casper said nothing to his classes of any intention of thus modifying his instrument. The writer went to Wm. Hirschmann, Johannis Strasse, Berlin, a well-known maker of cystoscopes and manufacturer of Casper's instruments, and laid before him drawings for the modified ureteral cystoscope. Mr. Hirschmann said that he believed the optical apparatus could be condensed, its flanges notcht so that the roof of the ureteral catheter could be withdrawn from the straight instrument without deflection of the optical apparatus, the angles dispenst with and a distinct advantage gained. The writer suggested to him the use of the small curved detachable tube to bring the proximal orifice of the catheter canal out of close proximity to the operator's eye. It will be seen from examination ot Fig. 2 that without this curved tube, manipulations intended to enter the catheter into this canal must take place very close to and directly in front of the operator's engaged eye. It was further suggested that in case the optical apparatus could not be sufficiently condenst, the sliding roof of the ureteral canal might be so constructed that it would be held in the groove at the sides of the gutter which it should cover for about a half inch at its distal and proximal ends only, that, therefore, if it were withdrawn for a half inch it would become free from the grooves on either side, could be slightly lifted over the edge of the optical apparatus and completely withdrawn; this last device to be used only in case the optical apparatus could not be sufficiently condenst as to allow the straight stiff roof of the catheter canal to pass over it, in the line of the long axis of the canal. Mr. Hirschmann agreed to make this instrument, but before it was finisht, the writer returned to America, having paid for the manufacture of a special cystoscope and having received a receipt for same, which is now in his possession. Mr. Hirschmann promist to send the instrument within a few weeks. The writer, expecting it daily, sent to the Secretary of the Mississippi Valley Medical Society a letter volunteering to read a paper at the Louisville meeting in the following October, on Cystoscopy and Ureteral Catheterization, with the intention of demonstrating this instrument. At the time of the Louisville meeting, the instrument had not yet arrived. The writer, however, in the course of the discussion of his paper, described the instrument, using for comparison a Casper instrument of the old model, borrowed from Dr. Bayard Holmes, of Chicago, who had brought his to the meeting with him. The modifications referred to above were all spoken of at this time. After the writer's return to Indianapolis, he received drawings from Mr. Hirschmann, showing progress in the fabrication of the instrument. These drawings were sent to Dr. Bayard Holmes, in Chicago, for his inspection, and returned by him to me. Letters from Mr. Hirschmann became very few. Weeks grew into months, and months into years and it was only after Mr. Hirschmann was threatened with an action thru the American Consul at Berlin that he forwarded the instrument designed by the writer. It bears the name of "The New Casper Ureteral Cystoscope." Drs. A. C. Bernays, of St. Louis, Wm.

Fig I

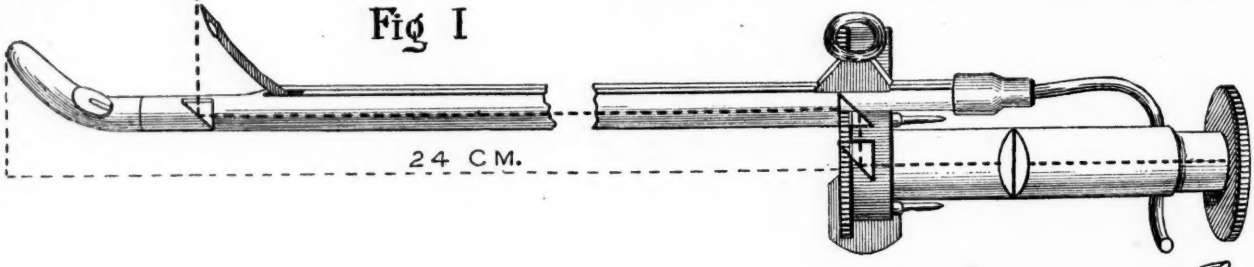
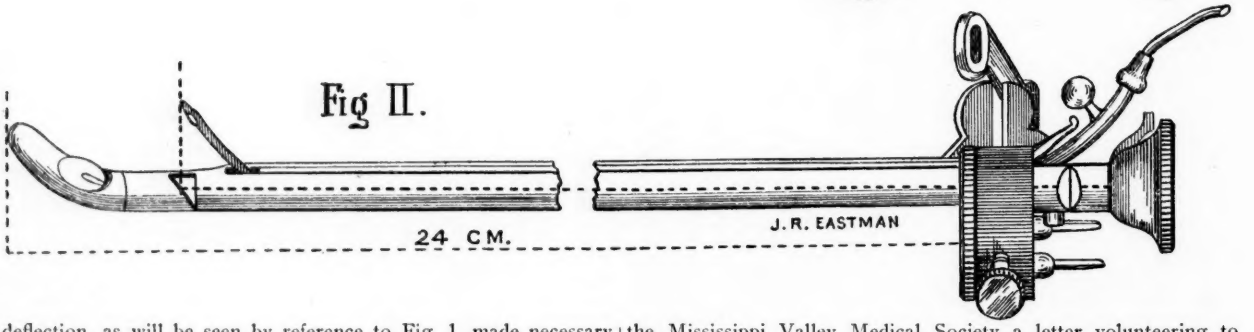


Fig II.



R. Blue, of Louisville, and Bayard Holmes, of Chicago, will doubtless remember the remarks made by the writer, pertinent to this subject in Louisville. Casper's Newer Cystoscope, so-called, appeared first about two years later.

The writer desires to emphasize that absolutely no feature of this instrument was original with Casper. The three great principles, the mignon lamp and right-angled prism in the bladder and the magnifying apparatus at the proximal end of the instrument were ennunciated by Nitze. The placing of the lamp behind the prism in the long axis of the instrument instead of in the angle at the instrument's beak and shaft, constitutes Lohnstein's modification of Nitze's original cystoscope.

The use of the second tube or canal for the introduction of the ureteral catheter was not original with Casper. Brenner, Brown and Nitze had already applied this principle. Nor was the idea of the removable roof of this second ureteral catheter canal original with Casper. According to the latter's own statement, this was devised by Rehfisch. Not even the arrangement at the distal end of the catheter canal, which makes it possible by pushing the roof of this canal backward or forward to change the course of the ureteral catheter was contributed by Casper, for Brown had previously employed a similar principle by which the catheter was deflected from the line of the long axis of the instrument and its introduction into the ureteral orifice facilitated.

The writer has not perpetrated this article with a view of establishing a priority claim, but simply hopes to vindicate himself before those gentlemen to whom he has claimed to have originally modified and improved Casper's ureteral cystoscope.

THE SURGICAL CORRECTION OF TALIPES EQUINO-VARUS.

BY WILLIAM V. MORGAN, M. D., INDIANAPOLIS, IND.

Consulting Surgeon to the Indianapolis City, Protestant Deaconess and Union State Hospitals, and to the City Dispensary of Indianapolis; Professor of Oral Surgery and Electrical Science in the Central College of Dentistry; President, Mitchell District Medical Society.

Dissatisfaction with the results accomplisht in the treatment of talipes comes from delay, deficiency in the correction, and a lack of judgment as to the best method to be employed. In most cases a patient with congenital, non-paralytic talipes should be able to walk at the same age as a symmetrically formed child, and a failure to so prepare him reflects discredit upon the medical profession.

In congenital cases treatment should begin at birth, and if the intelligent co-operation of the mother (whose hand is guided both by duty and love) can be secured, it will be found that persistence, rather than rude force, will accomplish the desired correction. As the plastic tissues yield to the gentle force, until the member can easily be placed in the over-corrected position, light braces are used to retain the correction. Massage of the foot and leg should be practist two or three times a day until the patient is able to walk, then light walking braces are fitted and must be worn until no danger of recurrence of the deformity remains.

I have elsewhere indicated my belief that the difference of time in the ossification of the tarsal bones has much to do with the causation of this deformity. In early fetal life the tarsus is composed of seven cartalaginous masses. It seems somewhat remarkable that the deposition of the ossific centres, by which these soft bodies are converted into bone, should take place in such a way that when a slight disturbance in the proper balance of the foot occurs the deformity of talipes equino-varus is not only perpetuated, but also aggravated. In proportion to the neglect of early treatment, force will misplace manipulative persuasion—keen steel will take the place of the gentle hand. I believe that the following facts have not before received proper attention. Briefly stated they are as follows: The centre of ossification appears in the calcaneum at the sixth month, in the astragalus at the seventh month, in the cuboid in the ninth month, in the scaphoid and middle cuneiform in the fourth year, and in the internal cuneiform at the third year. The centre for the calcaneum appears near the middle of the bone, and the centre for the astragalus appears posterior to the part which is mostly concerned in the production of varus. Now considering that the natural time for the child to begin to walk is from the ninth to the twelfth month, we see that the ossific resistance offered to gentle replacement of the parts would be insignificant, and that by having the feet ready to receive the weight of the body at the proper time, nature would so second the efforts of art as to make a perfect cure.

But suppose that the mistaken policy of procrastination has been adopted, the calcaneum, astragalus and cuboid will continue to grow, more especially in an antero-posterior direction, and become solidified, while the scaphoid, middle and internal cuneiform (whose centre of ossification does not appear until the third and fourth years) are raised in the inner arch of the foot by the tibialis anticus muscle, and are comprest by the forces acting between the astragalus and the first two metatarsal bones in such way as to prevent their growth in the antero-posterior direction.

These facts are beautifully illustrated by one of Goodspeed's elegant skiagrams in Dennis' System of Surgery, and are easily confirmed by any one who is familiar with the use of the Roentgen's rays.

The mechanism of the foot is such that as long as the bones maintain their proper relations to each other the muscles contribute to its symmetry, strength and elasticity. Let the relations of the tarsal bones be disturbed and at once the muscles become so many distorting forces. The action of the tibialis anticus is direct, being attacht to the highest part of the arch. The extensores longus digitorum, proprius pollicis, and peroneus tertius in walking act as levers of the second class, having their power at the tibio-fibular origins, the fulcrum at their insertions, and the weight at the anterior annular ligament. This annular ligament thus acts as a pulley thru which the arch of the foot is raised by the tendinous ropes. The flexores longus pollicis, longus digitorum, the tibialis posticus and the peronei act somewhat in the same way, the pulleys being situated beneath the internal and external malleoli. The tendon of the flexor longus pollicis stretches like a bow-string from the two ends of the arch, and the flexor longus digitorum passing beneath the pollicis tends to approximate the two ends of the arch and consequently elevate its middle.

The intrinsic plantar muscles contribute to the resiliency of the arch so long as they are properly opposed by the extensors and the body weight. The act of walking, so far as the leg muscles are concerned, is not purely a series of alternate contractions and relaxations of the anterior and posterior leg muscles respectively, but it also involves a guarded tonicity of all those muscles. When the normal equilibrium of the bones composing the tarsus is once destroyed by paralysis or other cause, at once all the muscles which contribute to stability, elasticity and symmetry in the normal foot are converted into so many distorting forces.

The Achillis tendon pulls to the inner side of the legs' gravity-centre, instead of the outer side; the extensors no longer tend to elevate the arch, but, acting sidewise thru the ligamentous pulley, tend to rotate the foot inward thru the astragalo-scaphoid centre; the greater the degree of deformity the more does the tibialis anticus tend to lose its arching action; the flexors, approaching more and more to a straight line, lose the benefit of its elevating effect thru its malleolar pulley; the intrinsic plantar muscles, being practically unopposed, become abnormally shortened, and, finally, if the patient walks, the body weight acts in such a plane as to increase the deformity. It is of sufficient importance to bear repetition that the child with this deformity should be made to walk as early as possible.

The centre of gravity for the weight which the os calcis sustains corresponds to a point nearer to the median line of the body than its own vertical median plane, throwing the weight of the body mostly on the large inner arch of the foot, and, so far as this individual bone is concerned, the body weight has a tendency to produce valgus. In the deformity under consideration, it is necessary to secure the benefit of this tendency.

In congenital equino-varus, the muscles principally contracted include the tibialis anticus, tibialis posticus, flexor longus digitorum, flexor longus pollicis and the combined gastrocnemius and soleus. So long as the tendo Achillis acts to the mesial side of the calcaneal center of gravity, the contraction of the muscles named, as well as the weight of the body, tend both individually and collectively to perpetuate and increase the deformity. But let the foot be placed in such position that the tendon pulls outside of this centre of gravity and at once the body weight acts as a most efficient corrector by stretching contracted tendons, ligaments and fascia, and by bringing the articular surfaces of the distorted bones into such relation that the pressure exerted shall assist in restoring their normal relations. Even when the foot is at right angles to the leg in the antero-posterior plane, the equinus element is present, tho maskt by the inward rotation of the calcaneum, and a failure to make section of the Achillis tendon means recurrence of the deformity.

The contracted Achillis tendon being an essential element in both the equinus and varus features of this deformity, stretching, rupture, or section of the other abnormal tissues will be futile as long as this powerful factor is operative. If timely proper treatment were instituted there should be no such thing as acquired talipes equino-varus. It is well to remember that the group of muscles supplied by the external popliteal nerve is more frequently paralyzed than any other muscle group in the body (being especially common in the clinical class known as infantile spinal paralysis), and that complete recovery from such paralysis is not to be expected. It is from this source that the greater number of acquired talipes cases is derived.

In patients who are old enough to walk, and who are being treated by the playful method of gradual correction, the time element is operative in different ways. Firstly, the feet are placed in a condition of persistent stress, of which discomfort and pain are the constant companions. This class of patients is often young and frail, and need to have their nutritive functions kept at the flood tide, and if we succeed in keeping them in fair condition in spite of tension irritation and its concomitant effects, it proves that the child has a strong constitution, and not that the treatment is good.

If the patient is able to walk, the brace will place the foot in such a position that the body weight will not only be acting at disadvantage, but the relation of the articular surfaces of the bones will change to some extent with each change in the tension of the apparatus. Unless the articular pressure points are changed in their relations frequently, a part of the vital forces of the patient will be expended in supporting a condensing osteitis where the new facets are being formed, and if they *are* often changed it necessitates a frequent repetition of tension, irritation and pain, which at most should be suffered but once. On account of the leverage required between the different parts of an apparatus used for the gradual correction of deformity, its weight must necessarily be much greater than of one whose function is simply retentive. Bearing in mind that nearly all parts incised are finally bound together by fibrous tissue, and that fibrous tissue built in as the result of traumatism has an inherent tendency to contract for a long time, every resisting structure should be cut or ruptured until the foot can be placed in a decidedly over-corrected position, and held thus by a fixt dressing until the parts are entirely healed. For a fixation dressing nothing equals plaster of Paris properly applied. After the wounds have healed and the scars lost their sensitiveness, a cure will be hastened by applying a walking shoe and encouraging exercise of the deformed member.

Mild ambulant cases may only require tenotomy; severe cases, in addition to tenotomy, will call for section of the deltoid ligament, the posterior ligament of the ankle-joint, and the astragaloscaphoid ligament; still greater degrees of deformity will require the operation of Phelps or the modification of Ridlon, while the extremest case may demand excision of the astragalus or cuneiform osteotomy. Whatever method is used, the operation is not completed until the foot is decidedly over-corrected.

I believe it always to be a mistake to make a subcutaneous tenotomy of the posterior tibial tendon behind the ankle-joint. It is understood that the performance of any operation for club-foot should require a fair knowledge of anatomy; but no degree of anatomical knowledge can insure safety to an incision in the dark for the section of this tendon at the place named. Division of the posterior tibial artery not only endangers the integrity of the foot, but should always involve an operation for securing its divided ends. If it is decided to make the tenotomy at this place, a far better method is to hook the tendon out thru a skin incision and divide it in the light. The best method, however, is to cut the tendon near its insertion into the base of the scaphoid bone. If abduction of the foot is prevented by a shortened deltoid ligament, after section of the tendons which hold the foot in varus position, the anterior part of the ligament may be cut subcutaneously, while the foot is held in strong dorsal flexion, and the posterior part ruptured by manual force. In this way the posterior tibial artery is not endangered. Division of the posterior ligament of the ankle-joint is seldom required. The ligament is a thin, disconnected membrane, which opposes little resistence to extention of the foot. The passage over it of the flexor longus pollicis tendon strengthens the ligament greatly, and in cases where shortening of this tendon prevents over-correction, after section of the Achillis tendon, it will be manifested by flexion of the great toe when forced extention of the foot is attempted. In such condition subcutaneous section of the tendon should be made just posterior to the head of the first metatarsal bone, or through the incision by which the tibial tendons are reacht.

Finally, the time to begin treatment in any form of talipes is when the case is first seen, and the physician who advises delay either displays ignorance or betrays a trust.

A NEW OPERATION FOR PERMANENTLY RESTORING A DISLOCATED KIDNEY TO ITS NORMAL SITUATION.

BY FRANK C. FERGUSON, M. D., INDIANAPOLIS, IND.

There is a difference between the terms "floating kidney" and "movable kidney," altho they are almost universally used as synonymous. The distinction between them, pointed out by J. William White (*Dennis's System of Surgery*), is as follows, viz.: Floating kidney is always a congenital anomaly in the attachment of the organ, while a movable kidney is the result of external injury or of internal strain.

The true floating kidney, according to this author, is a rare anomaly where the kidney is attacht to the abdominal wall by a reduplication of the peritoneum—a mesonephron—and lies within the abdominal cavity. Movable kidney is always an acquired condition—it is always retroperitoneal. It is freely movable either outside or inside its fatty capsule.

The most frequent causes of movable kidney are relaxation of the abdominal walls caused by pregnancy, tumors, etc., strains from lifting heavy weights, injuries in the lumbar region, and the absorption of its fatty capsules from acute disease.

White (*Dennis's System of Surgery*) says that too much importance has been given to pregnancy in the etiology of movable kidney, inasmuch as a large proportion of the cases occur in young girls. This does not agree with my experience. I do not remember of having ever seen a case in a young girl. On the contrary, every case in a female that has ever come under my observation was in a married woman who had borne one or more children.

Dr. Wm. H. Flint (*Ref. Handbook of Med. Sciences*) says this form of renal ectopia, sometimes designated by the terms "wandering kidney" and "floating kidney," usually presents itself in hysterical, middle-aged multipara, and on the right side. Indeed there seems to be no unanimity regarding the age or status of the individuals who furnish the larger part of the subjects of this disease. The truth seems to be that people of all classes and all ages may be the subjects of this malady. However, all are agreed that women furnish the larger proportion of these cases, the ratio being about 7 to 1.

The leading symptom of movable kidney is pain of a dragging character, usually located in the hypochondrium, which, in males, may radiate to the testicles and thighs. The pain is especially severe in walking or riding over rough roads or on horseback. In women, especially, the pain is often accompanied with vomiting, headache, indigestion and various nervous symptoms. The kidney may compress the vena porta, vena cava, bowel, the ovarian and uterine blood vessels. Such pressure may lead to ascites, edema of the lower extremities, appendicitis, obstinate constipation or disease of the pelvic organs.

The kidney is not very firmly fixt in its position by its natural supports. It lies behind the peritoneum imbedded in the tunica adiposa, the latter being its principal support, altho the peritoneum contributes to this, yet when the "tunica adiposa" becomes detacht from the abdominal wall, the peritoneum easily gives way and the kidney becomes movable.

In some cases movable kidney causes little or no inconvenience, but in most cases, it produces most profound disturbances which loudly call for relief.

The physical signs are those of a mobile tumor possessing the form and outline of a normal kidney. It is generally found in the hypochondrium or umbilical region, either behind or to the outer side of the colon. At the normal site of the organ tympanitic resonance may be elicited.

It is not, however, the design of the author of this paper to enter into a lengthy discussion of the literature or causes of movable kidney, but to bring to the reader's notice an improved operation for the permanent relief of this condition.

"Nephrorraphy," (or "Nephropexy" as some choose to call it) as it was performed by Hahn in 1881, has been so unsatisfactory in its results that many surgeons do not care to do the operation. Dr. J. Wm. White in *Dennis's System of Surgery*, quotes Delvoie as having collected the latest statistics upon the operation. Of 215 cases done by the best operators, 135 are reported cured, 30 improved, 25 unimproved, 20 relapses and 5 deaths. But we must remember that these are cases operated on by the best operators, and furnish no criterion for the percentage of mortality and relapses when done by the average surgeon.

The operation is one requiring experience and perfect familiarity with the technic. Some authorities report the failures as being about three out of every five cases.

It is a matter of surprise, to me at least, that no one, so far as I know, has ever proposed to utilize the parietal peritoneum for the purpose of permanently holding the movable kidney in its normal position. In Hahn's first operations the sutures were past only thru the fatty capsule of the kidney. He found that this method did not fix the kidney securely. He then past the sutures thru both the fatty and fibrous capsule and in twenty-seven collected cases there were fifteen cures, four improved, seven cases were failures and one case died. Generally, the stitches were past so as to include a portion of the parenchyma of the kidney. In fifty-nine cases operated upon in this way thirty-nine were reported as cured, eleven were improved, there were eight failures and one death. Modifications of Hahn's operations have been made by Senn and others, but whether the results have been better I know not.

The technic of my operation is as follows: The patient after having been prepared for the operation in the usual way and anesthetized, the surgeon proceeds:

1. To make an incision into the peritoneal cavity, commencing just below the twelfth rib just external to the rectus muscle, and extending downward to a point opposite the umbilicus. After all bleeding has ceast the right hand is introduced into the peritoneal cavity. Having verified the diagnosis he then palpates the gall-bladder, the appendix, the opposite kidney, and if the patient be a woman, the ovaries and tubes are palpated.

2. The wound is now packt with sterilized gauze to prevent the escape of the intestines, the patient turned upon the side and the usual incision for nephropexy is made below the twelfth rib down to the peritoneum.

3. The gauze is now removed from the abdominal incision, and the surgeon, standing with his face toward the feet of the patient, introduces the left hand into the abdominal cavity and pushes the kidney into its normal situation. An assistant with a tenaculum or other suitable instrument grasps the kidney thru the wound in the loin, and holds the organ steadily and firmly in situ. The surgeon with his fingers pushes the peritoneum beneath the inferior portion of the kidney and into the wound, where it is secured by a row of chromicised catgut sutures, which are carried successively thru the muscles, the peritoneum, the capsule of the kidney and out thru the posterior wound. These interrupted sutures are continued up each side of the kidney as far as the ureter and tied securely. The wounds are then closed, the usual dressings applied and the operation is complete.

It will be observed that a pocket has been made of the parietal peritoneum in which the kidney securely rests and from which it can not easily be dislodged.

I have operated in this way upon one case only, but the result has been so excellent that I am impelled to publish it to the profession. It seems to me that this operation, when properly done, should rarely fail to give complete and permanent relief to all the symptoms attending movable kidney.

BLOOD-LETTING, FOLLOWED BY INTRAVENOUS TRANSFUSION OF NORMAL SALINE SOLUTION IN THE TREATMENT OF TOXEMIA AND SEPTICEMIA, WITH REPORT OF TWO CASES.

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Several years ago before the Allen County Medical Society I professed my faith in intravenous injection of normal saline solution as a therapeutic measure in toxemia and septicemia, and on several occasions* since I have reaffirmed that profession and have advised the letting of blood in suitable cases, prior to the intravenous injection. My experience has been such as to confirm my faith in the measure, and my conversation with my professional brethren leads me to believe that its value is not so fully appreciated as it should be.

My experience with this method of treatment has been limited to cases of uremia, septicemia and septic intoxication, but I believe it will be found to be a life-saving measure in cases of acute auto-infection of intestinal origin and in cases of poisoning by drugs. Whether or not blood-letting should be used in conjunction with the transfusion will depend upon the character of the case. In cholera and cholera-infantum, for instance, blood letting would seem to be contraindicated, but in all cases in which the blood stream is polluted, blood letting should be done, save in the presence of positive contraindications.

The following cases are reported in brief to illustrate and emphasize the position here taken.

Case I.—I was called to Payne, Ohio, by Dr. Brattan to see a young man who had sustained a fracture of the right leg about three weeks prior to my visit. I found well-markt symptoms of septicemia. The bones were uncovered at the point of fracture, with no signs of any attempt at union. The margins of the wound in the soft parts were sloughing. A decubitus was found on the instep, and one just above the heel. Discharge was profuse and foul smelling. The patient was brought to the city and placed in St. Joseph's Hospital, where the usual means were instituted with a view of saving the limb. For a while the temperature, pulse, appearance of wound, etc., gave some promise of success, but not for long. At my morning visit I found the patient no worse than the day before, but on the evening of the same day I found his pulse 130, temperature 105°F., and the patient exprest himself as feeling much worse; the record showed that he had had two severe rigors during the day. Everything pointed to a speedy termination in death, unless vigorous measures were instituted at once. Dr. H. A. Duemling was called in consultation and agreed with me as to the prognosis and the necessity for prompt and vigorous treatment. Accordingly the patient was taken into the operating room as soon as preparations could be completed, which was at 10 p. m., of the same day, and with the assistance of Drs. Duemling, McOscar and Steman the leg was amputated six inches below the knee. After all the vessels were ligated except one of the veins accompanying the posterior tibial artery the turniquet was removed and the blood was allowed to flow from this vein until it was announced by Dr. B. V. Sweringen (who gave the anesthetic) that further bleeding would be hazardous, when the nozzle of the syringe containing the normal saline solution was introduced directly into the open mouth of the vein and six pints of the fluid slowly injected. The pulse became regular and of good volume, the palor of the face disappeared and the skin became warm before the injection was completed, and the patient was put to bed, after the usual dressing of the stump, in better shape than when he left it. Recovery was uninterrupted. The patient left the hospital in two weeks with the stump healed except over a small area where a slough of the skin had occurred.

Case II.—I was called February 23 by Dr. Ross, of this city, to see a boy of 10 years suffering from uremic convulsions, occurring in the course of an acute nephritis of scarlitinal origin. It was the opinion of Dr. Ross that the boy would certainly die unless something could be done at once, and after getting the history of the case and examining the patient, I fully agreed with the doctor. The patient was very nervous, jerking of extremities and twitching of muscles, and only partially conscious. Chloroform was given by Dr. Ross. With the aid of my assistant, Dr. Leslie, the median basilic vein was opened at the elbow, about twelve ounces of blood drawn and four and a half pints of saline solution injected. I should have stated that there had been markt suppression of urine. After the operation was finisht the patient was placed in a dry, hot pack. Profuse diaphoresis commenced at once. A few hours after the injection the patient askt to be placed on the vessel and past what the nurse called, "a large quantity" of water, which was much lighter in color than it had been. The mind cleared, no more convulsions have occurred and the doctor informed me to-day (February 25, forty-eight hours after transfusion) "that the outlook was in every way favorable, and that he believed the boy owed his life to intravenous transfusion of normal saline solution."

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APPENDICITIS AT A DISTANCE FROM THE SURGICAL CENTERS.

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In lectures, papers and books by such writers and operators as Morris and Deaver the most radical ground is taken in favor of the surgical treatment of appendicitis always. Ideal operations are described and methods advocated, which, if successful leave nothing to be desired.

With almost equal positiveness these writers advocate the removal of the appendix and admit very few conditions where, in this respect, discretion is the better part of surgical valor. From their standpoint this is no doubt the best teaching. In "setting copy" one must be as nearly perfect as possible. The model must show few imperfections. The moralist who teaches must live correctly as well as speak eloquently. The architect who directs the builders must see to it that no defects mar his work. The surgeon who teaches must teach surgery as it should be at its best. When others are to learn and to be guided by his precept and example, the teacher may not set forth exceptions as landmarks either in principles or methods; for we who operate only occasionally, led by ease of execution, might be induced to follow the exception instead of the rule. The vast experience of the great teachers and operators in the large centers of population like New York, Philadelphia and Chicago gives them power to discriminate and enables them, in practice, to make the rules of ideal surgery a dead letter whenever occasion requires or accident offers a condition demanding the exception rather than the rule.

To recognize exceptional conditions that are paramount, and to be able to set them forth so that others of more limited experience may be guided by the lessons deducible therefrom, are two very different things. There is a subtl surgical conscience, the outgrowth of both natural aptitude and experience, which defies either analysis or explanation. This it is that permits him who has it in large measure to rise above and act independent of rules scoring success, where any other course might invite disaster. The young,

and the occasional, operator must look for guidance to principles and broad general rules, deduced from ideal surgery. For emergencies that are a law unto themselves they must await the light of personal experience. The amount necessary will depend upon both culture and natural ability. Those members of the profession who are so situated, or so constituted naturally as to follow the practice of surgery exclusively, usually have the diagnosis made for them and the patient not only willing, but anxious for surgical relief before they are called. The influence of large hospitals, the educating leaven of contiguous medical colleges, and the thoro discussion of all surgical as well as other questions in the many able medical societies provide the great surgical authorities an environment permitting modes of action quite the reverse of what may obtain in remote and more thinly populated districts.

The general practitioner in large cities is in no sense a rival of the surgeon. He knows that in the minds of his clientele, the surgeon whom he calls is but a necessary evil. He knows that to become his competitor is beyond both the ability and the desire of the surgeon. In cities likewise, the general practitioner having specialists of all kinds around him, becomes naturally less self-reliant than his counterpart in the country or small country town, where everyone to a large extent must become an all-around specialist, overcoming unaided all minor, as well as some appalling difficulties. In country practice all are compelled to be general practitioners, no matter how strong both inclination and special fitness draw them to surgery. Thus, the surgeon is unavoidably the competitor of those who call him to see their cases as a consultant. The result is the surgeon is not called so long as his services can be dispenst with. It is then quite often "too late." If not "too late" complications have arisen that render the work difficult and the prognosis grave indeed. Conservatism, so-called, is given full and fair opportunity to demonstrate its "superiority" and we have many more opportunities to study the natural history of the disease under consideration than the surgeons who practice in places where they are permitted to act before the race becomes so close between the surgeon and the undertaker.

The split muscle, or gridiron incision of McBurney is, no doubt, a beautiful and an ideal method. The "inch and a half incision, a week and a half in bed with evanescent scar" are equally desirable, but neither the one nor the other can be, except in ideal conditions. When large quantities of pus are found, when rotten and friable belly walls exist, when these conditions have rendered identification or isolation of the overlying anatomical structures impossible, when bowel is far more friable than adhesion, when the appendix itself is so cheezy that an applied ligature cuts it off from the cecum as smoothly as if done with a sharp knife, drainage is then far more important than cosmetics, and time, even if it run into weeks, is but a small part of eternity; while a liability to hernia in such conditions is the patient's misfortune and not the surgeon's fault.

A long incision thru the roof of a huge collection of pus gives the best drainage possible, and offers a better chance to decide as to the advisability of further steps in dealing with the appendix itself.

It may appear to some that only the most skillful and those long trained to this special work should operate in such grave cases as appendicitis. In fact such thoughts are solemnly put forth by a few who, by great experience and brilliant success, might with some show of reason be accorded a certain degree of surgical holiness. This rule might, if possible, be better for most of those who must submit to the knife. But a vast majority requiring surgical aid are unable on account of their financial condition to send to the city for an operator even if time were not a most important factor to be considered. A great many of these cases are fulminant and a very pressing emergency exists, which even the most caloused and stupid "conservative" is able to recognize. The nearest surgeon is called. If one must operate on the emergencies and the poor he feels like enriching his experience when the chronic and the opulent need attention.

If an artery is to be tied, a compound fracture drest, a triphining done, a transverse position rectified, or any other of the many delicate and difficult obstetrical operations has to be done, the surgeon of the county seat must do it. An operation for appendicitis is neither more difficult nor dangerous than any of those just named; and these or some of them are done successfully every day by small town and country surgeons all over Indiana.

To illustrate what the experience common to a great class of physicians and surgeons of Indiana may teach, I offer the following cases. I am certain they can be duplicated by some practitioner in almost every county seat of Indiana. If any who read this are encouraged to persevere, guided by a clear conscience and the best light obtainable I am sure I shall have written for good:

Case I.—I was called by Dr. Imel, of Algiers, to see F. S., a boy 12 years old, who had been sick for more than a week with pain, tenderness and markt resistance on palpation in right side between umbilicus and the anterior iliac spine. There was high fever, coated tongue and constipation; markt bulging over region of appendix, with dullness on percussion. There was a history of previous attacks. Dr. Imel had made a diagnosis of appendicitis with pus and advised an operation. After a week's treatment with purgatives to clear the bowel, small doses of morphine to relieve pain, and hot applications to the side with rest in bed, the family were told that nothing but surgery could save the boy's life. They consented to surgery only as a last resort. After the usual aseptic preparations of field of operations and hands and instruments, Dr. A. R. Byers giving ether and Dr. Imel assisting in the operation, I made the usual incision over the most prominent part of the tumefaction. After cutting thru the skin I found the abdominal walls rotten and friable, and with my finger could easily have broken thru into the large pocket of pus. Making an incision two and a half inches long a pint or more of foul-smelling pus gusht out. Introducing my finger I found a large pocket with firm smooth, dense walls, but no appendix. Leaving protecting adhesions undisturbed I made no further search for the appendix, but after irrigating I packt gently with iodoform gauze, bringing it out at the lower angle of the wound and inserting three sutures of silkworm gut, beginning at the upper angle and coming downward till I came to a point where the tissue was so friable it would not hold a suture. Dr. Imel took charge of the case from that time on. The boy made a perfect recovery and has remained well ever since, or something over five years.

Case II.—I was called by Dr. R. W. Harris, of Algiers, to see A. M., a girl about 15 years old. Dr. H. had been called to see her only two days before. She gave a history of a week's illness, beginning with an acute attack of severe pain in stomach with neusea, vomiting and pain and tenderness in right side. Upon examination he found elevated temperature, coated tongue, anorexia, constipation, markt tenderness and resistence on palpation in right iliac fossa with a tumefaction in region of McBurney's point about the size of a goose egg. He diagnosed appendicitis and advised operation. When I saw her I concurred in the diagnosis. The parents consented for us to do whatever we thought best. We decided to prepare her for an operation the next morning. As a preparation she was given ten grains of calomel to be followed in five hours with a saline and hot bath. The purgative acted promptly and freely. She rested well all night without morphine and when we reacht the house next morning was so much better that her people declined surgery. She was up and about in a few days and has remained well ever since, a little over three years.

Case III.—Mrs. H., in practice of Dr. B. F. Hatfield, of Union, Ind., sick two weeks with all the classical symptoms of appendicitis, with a large tumor in region of McBurney's point, of ten days' duration. Belly was tender, fever was high and natsea present. He advised operation, which was refused. She was, therefore, purged and kept quiet and on liquid diet, with a prefect recovery in six weeks. She has remained well three years.

Case IV.—Miss O., 19 years old, in the practice of Dr. R. W. Harris, of Algiers, Ind., was taken sick on Thursday morning at a funeral, with excruciating pain in her stomach and sides, nausea and vomiting. She could hardly ride home, two miles, in a buggy. Dr. H. saw her on Friday morning and found a rapid pulse, vomiting, tenderness and resistence in the right side with tympanitic and tender belly. There was great pain with restlessness and high fever. Diagnosis was made of acute appendicitis. I was called on Saturday and found all the conditions more severe, with undoubted peritonitis, very weak heart, and pulse of 130. Her people were told that surgery was the only hope and that the prognosis even then was doubtful. Her worst symptom was the green vomit which took place every fifteen to twenty minutes. She was etherised by Dr. Abbot, of Otwell, and Dr. Harris assisted in the operation. Cutting thru the abdominal walls in the usual place there escaped some six ounces of foul-smelling pus, and three fecal concretions; adhesions were dense and the appendix pointed backward and upward behind the cecum. With great difficulty it was enucleated, delivered and tied off. It was very much swollen at the last one and one-half inches of its tip. Near the middle it was gangrenous and almost ulcerated in two. I irrigated carefully, mopt out the pocket gently and carefully with gauze and closed the wound with five silkworm gut thru and thru sutures. The patient was kept on the table but thirty minutes. Put to bed, came out from ether perfectly and quickly. Heart appeared better, but she died in about six hours from a gradually failing of heart, due, we believed, to the general peritonitis.

Case V.—Judge E. A. E., attackt suddenly on Sunday night about 11 o'clock. I was hurriedly called just after midnight. He had retired at the usual hour, about 9 o'clock, feeling perfectly well.

He was awakened near 11, with a most agonizing pain in abdomen. When I reacht him he was writhing and rolling about, holding his abdomen in both hands and complaining bitterly of the awful pain he suffered. I could make no satisfactory examination because he could not be still long enough. He was nauseated, had a full strong and slightly accelerated pulse and general abdominal resistence, with pain all over the belly. Morphine hypodermically did not relieve him, so I askt him to select counsel that I might give chloroform. Dr. E. G. Burlingame was called. We gave small quantities of chloroform and morphine till noon of next day in order to relieve him. I suspected either fulminant appendicitis or volvulus when I first saw him. By noon of next day the fixt condition of the belly walls with local tenderness and pain in region of the appendix were so well markt that our diagnosis was no longer doubtful. We gave calomel and salines and washt out the bowels with long rectal tube. This gave some temporary relief. On the second day I advised surgery as the only means of relief. Patient, at instance of family, deferred till the seventh day, then called Dr. W. R. McMalone, of Huntingburg, in consultation. He confirmed the diagnosis and advised surgery. I operated on the seventh day, Dr. B. giving chloroform and Dr. M. assisting me. I made an incision three inches long over the most prominent point of a slight bulging in the region of McBurney's point. A quart of pus, three fecal concretions and a macerated appendix gusht out just as soon as the opening was made. I irrigated cavity with hot water. Appendix or its stump was not found on abscess walls, and as the patient, who was a sufferer from emphysematous asthma, did badly under chloroform we hurriedly packt with gauze, sewing the upper two-thirds of the wound, and put him in bed in twenty minutes. He made an uneventful recovery, except that at the end of two weeks two enteroliths escaped from the wound and when it had about closed. At the end of the fifth week there was local pain and a small discharge of pus. Patient has been well for almost a year and sitting as Circuit Judge, a position very laborious and full of worry. Within the last nine months he has had four attacks of colicky pain referred to the region of the appendix, but these attacks have grown further apart, are of short duration and not attended by nausea or fever. I attribute the pain to dragging on adhesions. This case would have done better no doubt, had we found the stump of the appendix and dealt with it according to approved methods. But had we made a prolonged search and broken up the adhesions I believe our patient would have died on the table. A second operation is very repugnant to both patient and surgeon, but a death on the table is far more so.

Case VI.—A boy, 10 years old, in care of Dr. T. W. Basinger, of Petersburg, Ind., was attackt suddenly with classical symptoms, pain in abdomen, located in right side, tenderness on pressure at McBurney's point, muscular rigidity in appendical region, fever, nausea, rapid pulse. Dr. B. made a diagnosis of appendicitis, gave morphine hyperdermically, hot applications locally, salines, rest and liquid diet. On next day symptoms were unimproved. He then advised a surgical operation, which was declined. At the end of a week, the symptoms growing worse, Dr. B. called for counsel and insisted on surgery. This was in the morning. I was called in the evening. When Dr. B. and I reacht the bedside of the patient late in the evening we found a great change for the worse. Temperature 103°, pulse 150, respiration 42, belly enormously swollen, dusky color of skin, drowsy condition of patient, with constant vomiting of thin, green fluid. There was evidently a rupture of an abscess with general septic peritonitis.

Altho the friends would now have consented to surgery we declined to interfere, as we considered him beyond the reach of surgery, even. He died in a short time.

These are a few cases taken at random from my notes, which illustrate the difficulties country surgeons meet. I believe that morphine ought to be withheld, as it masks many of the symptoms. Yet one must relieve the pain or have the case pass out of his hands. This none of us are going to permit. "It is a condition that confronts us, not a theory." I firmly and honestly believe that every case of appendicitis ought to be operated upon just as soon as it can be prepared after the diagnosis is made. Then a cosmetic, a complete, a safe operation can nearly always be done. Yet we in the country never get to operate until it becomes a life and death matter. Physicians may advise and surgeons may urge, but patients will not submit. I have never yet been permitted to operate while there was any hope of recovery without. Time and again I have refused to touch the patient because when he and his friends did consent, he was "in articulo mortis." The influence of such men as Senn and Murphy and Deaver and Morris and Price and Bernays and Eastman is making itself felt. But long and loud must they teach and preach, often must they write and publish, strong must they talk and repeatedly must they demonstrate ere the surgical millenium has arrived. Let them be radical; no one but a radical can make himself heard. The trajectory of the best surgery is not parallel with the horizon of "conservatism." They may fall short if they do not aim high, and in surgery at least it will be a long, long time before it can be truthfully said with Emerson that "The people knew more than the preachers taught."

GENERAL REMARKS ON VAGINAL HYSTERECTOMY.

BY BYRON ROBINSON, B. S., M. D., CHICAGO, ILL.

The ovary is the central sexual organ of woman and should never be sacrificed if possible to avoid it. It is almost as constant as the brain. The uterus and oviducts are mere appendages of the ovary. Part or all of the ovary should almost invariably be preserved. The ovary is a closed gland and its prescience, physiologic and anatomic and mental, is a prominent factor. A small portion of ovary may be sufficient. Ovulation is a life-long process beginning before birth and continuing until the ovarian tissue is worn out. Retention of the ovaries prevents sudden precipitate menopause, rapid accumulation of fat and growth of hair. There is no need of removal of either oviduct or ovary nor the broad ligament on account of vaginal hysterectomy (save in malignant disease). By leaving oviduct and ovary the nerves of those two viscera are intact as well as those of the broad ligament. In such case the damage to the nerve apparatus of the genitals is well limited. As little removal of the genitals as possible should be practist, as no organs influence the head as strongly as do the genitals.

If equally good surgery can be accomplisht thru the vagina the operation is safer with less mortality and results are better, as less hernia and less peritonitis follow. There is also less danger of sepsis in vaginal hysterectomy than in abdominal hysterectomy. The points of superiority of vaginal hysterectomy over abdominal hysterectomies are: Vaginal hysterectomy has (a) no abdominal scar; (b) no especial danger to subsequent hernia; (c) recovery is smooth resembling that subsequent to parturition; (d) the enteronic region (the dangerous area of peritonitis) is less traumatized; (e) shock is less, both mentally and physically; (f) no stitches require removal; (g) by the vaginal incision almost the entire range of pelvic disease is brought within sight and palpation. Perhaps intestinal fistulae are more frequently made in vaginal hysterectomy than abdominal hysterectomy, but the dangers of permanent intestinal fistula are less in vaginal hysterectomy than abdominal hysterectomy, for spontaneous healing is the rule in fistula following vaginal hysterectomy. By those who have long practist both vaginal and abdominal routes there is no hesitation in claiming that the vaginal route for surgical treatment of the pelvic organs is safer and superior by the abdominal route, in spite of this tendency to fistula formation. When an intestinal fistula occurs in vaginal hysterectomy it is liable to be in the middle or dome of the sigmoid flexure, and not in the rectum. This will be quite easy to repair because four to six weeks subsequent to the vaginal operation one can, by abdominal incision, if necessary, easily free the whole sigmoid from the pelvic adhesions and elevate it above the pelvic brim, resecting it within easy access. Rectal fistula rapidly heals spontaneously, when made from below.

Practice and observation demonstrates there is scarcely any pelvic disease amenable to abdominal operation which cannot be equally well performed per vaginum, that vaginal operation saves the patient from mental and physical shock, from an abdominal incision, from posible hernia and from ten days to two weeks of convalescence. In vaginal hysterectomy with extensive peritoneal adhesions as the adhesions are broken up and the uterus drawn distalward with the traction forceps, the organs are inspected, palpated and treated by choice methods, the oviducts and ovaries removed, resected or preserved as indicated, with appropriate disposition of intestinal fistula. In fact vaginal celiotomy offers the most extensive field for conservative or radical surgery. Thru the vaginal incision the pelvic organs may be inspected, palpated, repaired, resected, freed from adhesions or removed.

The argument that vaginal operation should not be performed because the operator may meet a diseased appendix which could not be removed per vaginum is not well taken, for the appendix can be removed per vaginum in some instances, and also ordinary dianostic skill will indicate whether the pelvis is sufficiently diseased to demand a surgical exploration.

Vaginal hysterectomy should be performed with very few instruments, viz.: (a) traction forceps; (b) a pair of scissors, and (c) one, two or especially in most of the operations no retractors. Most publisht works show a superfluous supply of instruments.

In ectopic gestation as late as the third month, i. e., when the mass is in the lesser pelvis, operation should be performed per vaginum. In cases of large ectopic pregnancy, i. e., above the pelvic brim (and especially in doubtful emergency cases when the abdominal cavity contains large quantities of blood) rapid

abdominal incision is required instead of the vaginal. However, in the first shock from hemorrhage in ectopic pregnancy the patient is occasionally almost dead; in such a vaginal incision without anesthetic might be performed, the bleeding points drawn into the wound, clampt and later the operation finisht.

The writer wishes to say most positively that more useful surgery can be employed per vaginum than per abdomen where suppuration of oviducts, ovaries or pelvic structures exist. The argument is incontrovertible because (a) more patients recover under such conditions when executed per vaginum; (b) the patients recover more rapidly with less pain; (c) the operator per vaginum spares the patient the gravity of entering the dangerous region of peritonitis—the enteronic area; (d) drainage is ideal, and (e) if intestinal fistula exist or occur drainage is so perfect that not only does the patient recover, but the fistula frequently heals spontaneously, while per abdomen death is the rule in intestinal fistula.

The writer has for years adopted the rule that patients should be informed that the operator will remove diseased structures only. Under such information the patient is happier for it is well known that a patient does not know whether she had any distinct organ, uterus, oviduct or ovary and after the operation she will not know any different—she can simply be informed that the diseased tissues are removed. In vaginal operation especially we can remove just what is diseased and preserve the remainder.

The superiority of vaginal hysterectomy over abdominal hysterectomy may be noted in the following remarks:

Vaginal hysterectomy allows the most perfect known peritoneal drainage.

If the vaginal hysterectomy be done anatomically, i. e., the two uterine and two ovarian arteries be isolated and tied, the ureters will not be injured, and the procedure is one of the safest of all capital operations. The operator should always isolate and ligate the uterine and ovarian arteries with catgut, and fix into the upper end of the vagina. It aids elongation of the vagina.

All the ligatures are outside of the peritoneal cavity, or can be removed.

There is little shock and rapid and easy convalescence.

In pelvic suppuration there is a minimum danger of septic infection from soiling the peritoneum.

A minimum amount of trauma is inflicted on the intestines and other viscera.

It is seldom followed by suture or mural abscesses, or by sinuses, following the use of drainage or infected ligature.

In vaginal hysterectomy it is hard on the operator, but easy on the patient, while abdominal hysterectomy is the reverse.

So far as I can see, it does not materially weaken the pelvic floor to perform vaginal hysterectomy, because the pubic and sacral segments (valves) are forced apart while the uterus and tumor pass, after which—as in labor—they close. However, in certain individual cases partial prolapse of the vagina does occur.

The menopause seems to be easier when the uterus is entirely removed, than when only partly removed.

Recovery after vaginal hysterectomy is much smoother, with less vomiting, pain and thirst than there is after removing the appendages thru the abdomen. Thirst is perhaps due to the congestion of the peritoneum after the section.

Vaginal hernia is less after vaginal hysterectomies than is ventral hernia after hysterecotomy per abdomen.

Vaginal hysterectomy is the operation of choice in cases of so-called hystero-epilepsy where every trace of genitals that aid in the menstrual rhythm should be removed with almost entire safety. The ovary, which is separate from the menstrual rhythm, should be preserved.

Vaginal hysterectomy has low mortality, few post-operative complications, and a complete restoration to health in a vast majority of cases.

In vaginal hysterectomy the vagina should not be closed by suture.

The matters to avoid in vaginal hysterectomy are the wounding of the bladder, rectum (any bowel) and ureters. The operation should be learned on the cadaver, or one should assist a skilled gynecologist at say twenty-five operations, when the technic will be slowly acquired. Vaginal hysterectomy, skillfully performed, is a very safe operation.

INDICATIONS FOR VAGINAL SECTION.

What cases should be performed vaginally?

(a) All pelvic suppurating cases.

(b) All pelvic diseases which do not reach above the pelvic brim.

(c) Ectopic pregnancy, if it be below the brim of the pelvis.

Almost all tumors, growths or swellings which extend above the pelvic brim, should be attackt per abdomen.

Vaginal hysterectomy allows frequently an extra peritoneal operation. The great mass of intestinal adhesions may remain unbroken and the general peritoneal cavity remain unopened.

Removal of septic foci will allow many of the adhesions and most of the exudates to absorb. The patient will frequently be restored to health and resume the juvenile step.

From personal experience we found that the following class of cases are almost perfectly and safely cured alone by vaginal hysterectomy.

(a) Non-suppurative diseases, when by repeated inflammatory pelvic attacks, the oviducts, ovaries, uterus and many loops of intestines, are held in dense masses of exudates and adhesions.

(b) Painful uterus and localized painful points in the oviducts and ovaries after laparotomy.

(c) Abdominal fistulae following laparatomy for removal of oviducts and ovaries, which resist cure by curettement, cauterization, or operation when the ligature cannot be found or removed with safety.

(d) Chronic suppurating diseases attacking not only the oviducts and ovaries, but also the parametric and periuterine tissues demand vaginal hysterectomy for a cure.

The general views in favor of hysterectomy as against removal of the oviducts and ovaries may be noted in the following propositions:

1. The uterus is useless without the oviducts and ovaries.
2. The uterus does not get rid of its inflammation, endometritis and metritis, for from six months to two years after the operation.
3. The uterus, witn its inflamed tissue is a source of pain and disease. The uterine walls are almost always diseased with infected oviducts and should be removed.
4. The uterus is a point where disease cannot only start, but does persist.
5. The menopause seems to be less distressing when the uterus is entirely removed, than when only part is removed.
6. It is not conservative gynecology to retain diseased organs when the disease may revive.
7. It is said that sentiments of the patient are against removal of the uterus. So was the patient's sentiment against removing the oviducts and ovaries a few years ago, but "sentiment" can be overcome and also a gynecologist must not go by what a patient says, but by experience and pathological conditions.
8. It is, according to my observation, that the neurotic symptoms following removal of the uterus, for bilateral diseases, are smoother than after removal of both oviducts and ovaries.
9. The inflammatory disease begins in the uterus, and therefore, the uterus, as the first offender and the persistent menace, should be removed.
10. The first disease starting in the uterus generally leaves the endometrium crippled with the uterine wall in the same condition jeopardizing the patient to recurrent attacks.
11. The blood vessels, lymphatics, muscularis and nerves of the uterus, once damaged by disease and without oviducts and ovaries, are a menace to the life of the patient.

Moreover, removal of the oviducts and ovaries does not always stop the pain, hemorrhage and discharge. The uterus remains as a breeding ground for germs and disease.

To pronounce vaginal hysterectomy unsurgical is absurd, for it cures the patient.

To say vaginal hysterectomy is mutilating because it removes an unoffending organ is not true, for the uterus is often an offending organ subsequent to operations.

After the oviducts and ovaries are removed the uterus becomes a vestigial organ, a remnant, and such relief or fading organs are more or less dangerous, as is observed in the appendix, parovarium, branchial-clefts, mammary glands and the urachus.

Vaginal hysterectomy is not so fatal as removal of the oviducts and ovaries.

If, after vaginal hysterectomy, the broad ligaments be drawn down into the vagina and held there by ligatures or clamps the healing will draw the vagina up and elongate it. In our last seventy-five cases we followed this plan with good results.

So far I have not observed that hysterectomy produces a materially viscious relation of the pelvic organs. We know that it shortens the vagina, and like removal of the oviducts and ovaries produces a certain kind of atrophy of the genitals, especially in young subjects. It changes to a slight extent the vaginal axis on account of the broad ligaments drawing it upward, hence would tend to visceral prolapse. In short, those tissues supplied by the uterine and ovarian arteries will be subject to atrophy, but the atrophy of genitals must be sought for in the peripheral territory of the pudic nerve and the pelvic sympathetic. The terminal branches of the (sacral plexus) spinal nerve supply both the internal and external genitals. The pudic nerve is formed sometimes by branches of the first, second, third and fourth sacral

nerves, but generally it is formed by the third and fourth sacral. In hysterectomy the fourth sacral nerve is severed, but not the pudic proper supplying the external genitals (and the rectum). But by the severing of the fourth sacral the external genital region of the pudic also suffers reflexly from atrophy. Yet apparently the portion of the pudic nerve which supplies the rectum does not atrophy. However, the observation of the blood vessels in the rectum must tell the story. Do haemorrhoids arise or subside after hysterectomy? In regard to the atrophy of the region supplied by the pelvic sympathetic I have only observed it in the territory of the pudic, or in the region supplied by the second third and fourth sacral nerves, i. e., the terminal (genital) branch of the sacral plexus. It appears to me that hysterectomy is less profound and less tedious in effect on the spinal nervous system than removal of the oviducts and ovaries.

My experience and observation convinces me that a woman is not unsext as much by hysterectomy as by the removal of the oviducts and ovaries.

The most profound atrophy in hysterectomy occurs in very young subjects. The vulva shrinks, it takes on senile atrophy, the skin folds smooth out, the fat disappears, secretions lessen, the blood vessels narrow and the parts become pale and shiny. The vagina shortens and straightens, the rugae become smooth, the secretions disappear, the vaginal wall assumes a leathery consistency, a conical shape and loses its elastic accommodation. The evil often announced that damaging changes occur in the spinal cord after hysterectomy falls to the ground when it is considered that precisely these same conditions will occur at the menopause which arises from removal of the tubes and ovaries. Any atrophy arising after hysterectomy is a natural process of life, of development and of evolutionary process. The evil lies only in the untimely production and is more markt if the ovaries are removed.

The atrophy of the pelvic sympathetic or the terminal portions of the hypogastric plexus, which includes the pelvic brain or cervico-uterine ganglia, is doubtless the essential factor in this peculiar atrophy of the genitals. The radiating nerve strands of the large pelvic brain controls the field of nourishment in the region of the ovarian, uterine and of pudic arteries.

The female genitals are like the urachus, the meso-nephros, the appendix, the placenta, the hypogastric and umbilical, the omphalo-mesenteric duct, the gill clefts (ductus botali) and the placenta—they arise, functionate for a season, fulfill a purpose and subside forever. They are essential stages in the evolutionary progress of the life of the organism; hence, genital atrophy is a natural process.*

THE PREPARATION OF THE PATIENT.

The patient is prepared three days for the operation. The same methods are employed whether the operation be per abdomen or per vaginam.

The preparation consists in drainage of the three systems, viz.: (a) The tractus intestinalis and its appendages; (b) the tractus uranus, and (c) the skin and its appendages. In other words the bowels, kidneys and skin are drained.

The digestive tract is drained by two remedies, magnesium sulphate and mild chloride. On the first of the three days the patient is given three grains of mild chloride in the morning. Two hours later one teaspoonful of magnesium sulphate is given and repeated every hour for three times. The morning of the second day two grains of mild chloride are given, and two hours later a teaspoonful of magnesium sulphate, repeated every hour for three times. This treatment (five grains of mild chloride and six teaspoonfuls of magnesium sulphate) generally serves to produce a half dozen bowel evacuations. The last day before the operation the patient gets a teaspoonful of myso in the forenoon and one in the afternoon. The five grains of mild chloride and one ounce of magnesium sulphate generally makes ten to twelve stools. The last bowel evacuation will often glisten with bile. The mild chloride stimulates to active secretion the glands (liver and pancreas) of the whole digestive tract, while the magnesium sulphate acts as an evacuant and serous cathartic. Vast amounts of fluid are expelled per rectum. The digestive tract is now in a state of collapse, like slippery ribbons. An empty bowel is usually a contracted one. It occupies a space out of the way of the operator, and is, therefore, not so likely to be seriously traumatized. The cells of the tractus intestinalis and its appendages are now thoroly drained and at their highest point of resistance. They are not loaded by waste laden fluids nor overfed.

Magnesium sulphate should be given in half teaspoonfuls and teaspoonful doses only. Tablespoonful doses should be abandoned.

The urinary tract is prepared for three days by drinking three to five pints of hot normal salt solution daily. Some object to normal salt solution and these should be given three to five pints of distilled water daily (better hot). Mineral waters are liable to irritate the kidneys. By the end of the third day the urine will be increast 20 to 40 per cent, and be almost as clear as water. Also the magnesium sulphate being one of the best diuretics (in small doses) aids to increase the urinary secretion. By the third day the uriniferous tubules are flusht out, and the cells are drained to their highest active possibility—all debris is drained.

The skin is drained by mechanical means, viz.: Scrubbing with soap, water, brush and salt. The patient is given a warm tub soap bath daily for three days. This opens the skin pores, desquamates the dying epithelia, starts and stimulates the sweat glands and routs the germs from the skin field. By the third day the skin is in its highest physiologic activity, and is able to dispose of vast amount of waste-laden fluid—sweat.

Hence the preparation of the patient consists in drainage of bowels, kidneys and skin for three days (at least—a week is better). For the three days preceding the operation the patient is placed on liquid diet, as milk, eggs, oatmeal and toast, rice—no meats. The patient should lie in bed or on the couch for three days before the operation.

Six hours after the operation (if it be a peritoneal section), the patient is given a half an ounce of hot water per hour in divided doses, twelve hours after, two ounces per hour. The third day three to four ounces of hot fluid are given per hour. Sometimes on the second and third days cold water may be tried, but it is liable to produce vomiting. On vomiting all fluids (and solids) should be withheld for a while.

The abdomen or vaginal surface is prepared for three days by careful scrubbing of the wound area. First days, soap and warm water ten minutes morning and evening, with 1 to 2000 bichloride two minutes and hardened with alcohol one minute. On the second and third days warm soap and water at morning and evening five minutes and one minute with alcohol. A green soap pad is bound on the abdomen and vulva the night before the operation to soften and macreate the skin so that warm soap and water will wash off the epiderm scales and alcohol will harden the surface. The method of systematic and careful preparation before the operation and systematic treatment subsequent to the operation has enabled me to perform over 230 consecutive non-selected vaginal hysterectomies with four deaths only—less than 2 per cent mortality.

Dr. Lucy Waite, the gynecologist-in-chief of Mary Thompson Hospital, has a record of 1 per cent mortality under this same systematic method of preparing patients and caring for them after the operation.

*References besides the text, Pean, Doyen, Wathen, Veit, Coffe, Segond.

REPORT OF A UTERINE FIBROID OF LARGE SIZE SUCCESSFULLY REMOVED.

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Miss B., age 25, of Crawfordsville, Ind., consulted me for severe uterine hemorrhage, which came on at every menstrual period, sometimes flooding till her life was endangered; and so great was the loss of blood that she did not recover before another period would recur. She had consulted most, if not all, of the physicians of her own city with indifferent results and no satisfactory diagnosis. At the time I was consulted she was under the care of a woman physician, who had been treating her for some time, and whose diagnosis was "cancer of the uterus." This also was the opinion of some others who had seen her.

She was an unmarried lady, of small stature, and physical development corresponding. She was pale, anemic, emaciated and exceedingly nervous. She was deprest and much exhausted. A physical examination revealed a singular condition, viz.: The vagina was blockt up about the upper segment and down to the ostium vaginae with a friable, granular material, which could be easily broken up and removed. This so obscured the sense of touch that I had to remove a double handful of it before I could find the os-tincae, which with blood and mucus, made an uncertain beginning. As soon as I reacht the womb I found it enlarged, the os dilated the size of a silver dollar and occasionally there were severe pains resembling labor, and altho she was a virgin I did not know what I should find. She was as large as a woman at about the seventh month of pregnancy, and yet she and her family were above suspicion. I detected within the womb a hard body, rough on the surface and not like a child's head—immovable except with the womb. Taking the history, including hemorrhage and pain as described, I made a diagnosis of uterine fibroid of large size. So utterly at variance with all the previous

statements which had been made, that I took time to reflect. Cancer was the last opinion and yet a clean, smooth surface with dilatation did not indicate the latter disease, especially as there was no cachexia in the case. I gave my opinion to the family and instructed them what to say to the patient, while I went to the hotel for dinner. I said if she consented to the operation I would attempt removal in the afternoon. I advised a surgeon of that city to be called, a man who was my friend and a safe counsellor. He saw her with me and advised the removal of the tumor and administered the chloroform, ether and alcohol mixture to full and complete anesthesia with a stimulant previously administered. I gave ergot beforehand, and proceeded to dilate more fully the mouth of the womb. It was slowly done, so far as to be able to apply a pair of narrow, delicate forceps within the womb and grasping the tumor fully, as if applied to a child's head. When this was done traction was fully made by the forceps so that the tumor was dragged down and the uterus with it, so as to discover its attachment and the size of it. It was a round or flattened pedicle as large as my wrist; say safely, two and a half inches, or slightly more, springing out from the center of the fundus, thus tying it strongly to the womb. By this time the traction was great, and gave some anxiety, yet the great size of the pedicle was ligated, the assistant aiding me by holding down on the forceps till I could ligate with a strong cord at right angles in two directions, effectually ligating in two sections and dividing the pedicle below the ligature. The tumor had thus been delivered outside the vulva, bringing into view the pedicle. I feared somewhat I might invert the womb, but remembering she had never been *enciente* I thought finally that an inversion could not well take place, and yet I had the conditions of seven or eight months' size of a pregnancy and an attachment in the center of the fundus and acting from the outside of the attachment and the os dilated widely enough to deliver. I had reason to fear it. It did not occur because when I reacht the pedicle I did not advance the force, by which I doubt not an inversion might have been produced. When the tumor was finally removed the womb was replaced and the ligatures allowed to hang out until nature removed them by a separation of the pedicle from the womb surface, which was effected on the sixth day, pedicle and ligatures coming away together, leaving a raw and red surface clearly brought into view by a speculum afterwards used to make a treatment of this raw surface, and which by the relaxt condition of the uterine walls, was easily done.

This statement might be doubted, but it is a fact. In the history of such cases a strong light can be thrown into the cavity up to the fundus, revealing also the appearance of the internal uterine surface. This tumor was of large size with a large pedicle, and nature never could have expelled it, tho uterine effort was clearly shown in the history. No hemorrhage occurred in all the effort to remove this tumor, yet it was the source or cause of dangerous hemorrhage once a month. None occurred in the separation of the pedicle, and altho the patient was greatly reduced she bore the operation well, and in thirty days made a good recovery without any accident. She was treated for some days till the surface from which the pedicle was separated was healed up and all soreness incident to the removal had past away. She was kept upon stimulants and tonics, and good nourishment during her recovery, for which she and her friends were duly thankful. The result of her final recovery was she was sought in marriage by a wealthy man of her city, and I visited her in her own home, and congratulated her upon her recovery and the happy surroundings of a wedded life.

LIFE-HISTORY OF UTERINE FIBROIDS.

Fibroids may be of two kinds, but I prefer to say that under a strict nomenclature they are what Virchow describes by the name "Myoma." Bilroth, however, rejects this name, which simply consists in hypertrophy of fibres which are similar, if not identical, with muscular tissue, and hypertrophy implies the changes with enlargement, which takes place in development. This is simply compounding terms to express the pathology, Myo-Fibroma. Do we know any more than before? The true nature of these growths was not comprehended until Hunter's time, as they were and may be yet confounded with some malignant growths. And yet as we understand them no relation exists with malignant growths unless some cachexia may appear. Even Virchow admits the possibility of both carcinomatous and sarcomatous degeneration, and Klob agreed with this opinion. Even Thomas says he is "constrained to admit such a transition." (Pg. 520, *Diseases of Women.*) The question naturally enough arises: Can there be change of type in structure? If there can be in the genus-homo, shall we be forced to admit a change of doctrine, viz.: "That like causes produce like results," and then put the question like this: "Like causes produce *unlike* results?" This change of doctrine will vitiate all our knowledge so far learned, and establish in its place the "*Doctrine of Modern Philosophy and Science*," viz., "EVOLUTION," in which new types and new beings are developt from unlike types and unlike beings. I do not accept this doctrine or "theory of development," neither is it true in science any more than in nature. In cell development "Like cells produce like cells," and where a cell arises, there a cell previously existed; hence we have the doctrine, "*Omnis cellula e cellula*," as Virchow forcibly puts it, "Just as an animal can spring only from an animal and a plant from a plant," (and he might have added, each from like species). So also he further generalized thus: "That in the whole series of living things, whether plants or animals and their essential constituents, an eternal law of continuous development prevails." (Virchow, *Cellular Pathology*, pg. 55.) The doctrine of a change from benign to malignant growths is one which was taught and accepted, but it remains a grave question if malignancy will obtain at all unless there is some cell type which proliferates according to a law, which produces its like and which was hereditary, and so in the development of cells—the cancer cell proliferates its own cell and follows its own law. The law of development has been given, and if anything it has departed from it. I assume the parent-type existed. If not so, then the law of "external continuous development" does not obtain, but some other law. But that a cell of any normal type of tissue can produce a change of type and form so as to beget a foreign and abnormal type is contrary to all laws of type, and all those of progress as well.

Type of Fibroid.—"In its typical form it is hard, resisting fibrous tissue, and cuts like cartilage or tendon. It is found with the microscope to be composed of long white fibres, united in bundles, composed of fusiform fibre cells, similar to fibro-plastic material and of round or flattened granules bound together by intercellular substance." *Homologous* and *Heterologous* are terms expressive of one idea of type, but only express the idea of likeness or unlikeness to a parent type. We say "Homologous" in type when resembling uterine fibre, and in this sense these tumors are strictly "homologous." Sometimes it happens that muscular tissue predominates more than the connective tissue, which it seems is the parent type, according to most recent investigation. Hence we might say, according to the ideas here presented, that these tumors are purely and strictly "homologous," and are simply examples of hypertrophy of muscular fibres with a facility engrafted upon them for growth, which is, according to this thought, excessive nutrition.

Location of These Tumors.—This varies. First—Intra-Uterine, or developing within the cavity of the uterus. Such are usually pediculated. Second—Intra-Parietal or interstitial; that is developt in the walls of the organ and causing an irregular and unequal development of the organ, and finally projecting into the cavity. Third—Sub-Peritoneal (and one case in a negress I saw was as large as a child's head at term, and could be revolved all about the abdomen, having the uterus as a centre; that is migrating, not detacht, but loosely held by an attachment similar to the pedicle of the internal variety). Such a one cannot be removed except by a laparotomy, and which in the case mentioned was proposed, but persistently refused by the patient from fear of non-recovery.

SURGICAL TREATMENT.

Here we have presented three distinct varieties, and which are clearly discoverable with the methods of diagnosis. The first variety is dealt with as indicated in the annext case, and is, perhaps, the best mode of dealing with them. It might be suggested here that in such case as the one given, injections of ergot or ergotine might and could have been used, but the condition of the patient as described, seemed to forbid any temporizing upon any possibly theoretical idea of success by which the patient might have been lost. Ergotine and carbolic acid, combined in definite proportions, might be found to arrest the growth of such a tumor. "But would it be safe?" is the question, and if this question has been carefully settled that ends the discussion.

The interstitial form may be reacht in its progress when so far developt into the cavity as to be able to use a serrated scoop (smaller or larger) so as to divide the sub-mucous and mucous wall and admit its being removed from the cavity. This may be done by traction or vulsellum forceps and passing the spoon (saw) about the tumor and by traction and sawing sever its connections with the organ. This involves several important questions, and among the most important ones to the patient and success to the operator, is the one we now denominate—*Septic.* But before entering upon such a question we should refer to the methods open to the surgeon in dealing with such growths. First, excision; second, ecrasement (traction or avulsion, which may be combined with the second, the ecrasement) by curette or saw or spoon (serrated), separation or enucleation, and lastly, injections (single or combined) with a view to arrest of growth or destruction by dis-

integration or sloughing. This brings us to the antiseptic idea, and to prevent the destruction and sloughing method would be the first step in an antiseptic method. The gynecologist of antiseptic tendencies certainly would not resort to a septic method to remove the tumor unless he distrusted his own ability to institute operative and antiseptic methods to the more certain and successful removal. If he did this he would resort to the certainly more dangerous and uncertain methods adopted or suggested by men who lived prior to the introduction of the safer antiseptic methods of to-day. Dr. Baker Brown, who was one of the pioneers in this department of surgery, and others with him, adopted the method of mutilation and final sloughing of the tumor, so destructive to the tumor, and as it now seems to me, without a proper comprehension of the effect of such a process upon the fluids and tissues of the patient. In view of all the progress made along the line of antiseptic surgery and the lessened mortality attending all operative antiseptic procedures, I say no one should do it now. Let it be relegated to the past and let oblivion cover it up forever. This includes all methods of destruction of tumor, whether attackt by any injection method or any other which may destroy by a liquefaction or disintegration of the structure of the tumor. Excision or ligation in case of pediculated tumors (and I can scarcely conceive of a tumor within the cavity which may not be removed when there is sufficient development of the uterus and a proper dilatation secured) is advisable. Traction by forceps (vulsellum or Nelaton's or some other adapted to as broad hold as possible) enables the surgeon to reach the central point of the fundus, to which the broad pedicle of the tumor is usually attacht, of large size and ligate it, so that the tumor is at once removed, leaving only the stump of the pedicle and its ligature to be removed by a process of nature, which is sure to follow under antiseptic precautions.

Sessile Tumors.—These are among the most difficult to remove; as by this term "Sessile" I mean those which are also called "interstitial," and by some "sub-mucous," and I also mean those which are grown in the walls of the organ, and have a surface similar to the cavity itself, i. e., covered by mucous membrane, which is spread out over the tumor, and which may be thickened, or by pressure may become thinned until it may be easily drawn into the cavity by use of serrated spoon and traction. This should only be undertaken when there is sufficient dilatation for the use of instruments, under a strictly antiseptic method.

THE APOSTOLI TREATMENT.

The treatment by galvanic negative electric currents, or "Negative Electrolysis," has been very popular with some gynecologists. It yet remains an open question as to the power of electrical stimulation to so modify the protoplasm of cells as to cure; to secure a removal of the growths under discussion, I only so far indicate that whatever has been accomplisht in this direction by Apostoli and his followers has been to arrest growth, modify nutrition of cells favorably so that morbid processes have been rendered inactive or latent, so that health has been improved, so far as to regain much of what had been lost in this direction. I have not had an opportunity to test this method, but shall do so in the near future. I believe there is much more in this method than has yet been obtained. Other surgeons are experimenting along this line of treatment with some hope of larger success.

SOME REMARKS ON APPENDICITIS.*

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CAUSATION.—The factors which render the appendix less resistent than other portions of the intestinal tract to the onslaught of pathogenic germs—the determining causes of inflammation—are many. They are anatomical, physiological, mechanical and bacteriological. The nervous and vascular supplies are variable and frequently defective. This may be the result of angulations, torsions, etc. The appendix may be described as a little catch basin dangling from the great sewer trap of the greater sewer, which makes a favorable hiding place, and favors the virulence of bacteria normally present in the intestines. They are not diminisht by a free drainage, as in other portions of the intestinal tract. Fecal accumulations or impactions in the cecum mechanically interfere with the normal physiologic functions, and close the cecal orifice of the appendix by catarrh al inflammation or by emitting pestilential gases, which may distend the appendix like a toy balloon. Again fecal impaction in the sigmoid flexure may, by distending the entire colon, cause a breakage in the appendix (already weakened by catarrhal inflammations or fecal concretions) or it may occlude the lumen of the appendix and prevent drainage, or it may cause an erosion in the mucous membrane and thus reduce the power of the organ to resist the attack of pathogenic germs or their toxins. As a rule, to which there may be exceptions, I believe we can answer the laity by saying that grape seeds and other similar foreign bodies rarely do harm until the organ has become weakened or its cecal orifice partially or completely closed by some of the other causes mentioned.

DIAGNOSIS.—The important subject of diagnosis can best be studied by object lessons. Two patients will soon be brought before you. The earliest possible diagnosis is of decided advantage, as it is possible in a very limited number of cases to anticipate the worst of the inflammation and institute the proper operative treatment before the appendix is ruptured.

While in a very large majority of cases peritonitis is set up by a rupture of the appendix, it must be borne in mind that the worst of pathogenic germs may escape thru the appendix, or even thru the coat of a bowel, without rupture. Pain and tenderness with rigidity of the abdominal muscles in the right iliac fossa, with a tendency to obstruction of the bowels, is a tripod upon which our diagnosis may rest. Added to this in at least 75 per cent of cases is a history of similar attacks. The pain is nearly always reflected above the umbilicus to the superior mesenteric or solar plexures of nerves. I have many times been enabled, by pressing over McBurney's point to reproduce the pain above the umbilicus, even radiating towards the spleen. The fickle-minded, sympathetic nerve filaments which supply the intestines have no geographical sense; hence patients and doctors are deceived because the initial pain is not in the region of the cecum. This is a matter of great importance; that the tumor if found is in the region of the normal appendix, but that the pain, and often the tendencies may be referred to some other part of the abdomen; but with the fever and other symptoms present, this should not misguide you.

CASE I.—This young man brought before you under the anesthetic is 30 years of age, by occupation a brick-mason; has had numerous attacks of recurring appendicitis. He has become emaciated; so much so that bearing gently downwards with the tips of my fingers I can distinctly feel what I believe to be the appendix, thickened and exceedingly tender.

Everything which can in any way come in contact with the wound has been either boiled or steamed in the sterilizer, except my hands and the field of operation, which have been scrubbed ten minutes with brush, soft soap and water. Following this, we have used chloride of lime and sal soda; still later washing with diluted alcohol; and finally with bichloride 1 to 2000.

I make an incision thru the skin and superficial fascia down to the aponeurosis of the external oblique. The margins of the wound are now drawn well apart, and the aponeurosis cut at a right angle to the incision in the skin. We find we are parallel to the fibres of the external oblique. These are separated, not cut; the fibres of the internal oblique and transversalis are also separated, not cut; we now hook up the peritoneum with tenacula, nick it with a knife, slip in two fingers, bring up the head of the colon, staying it while a finger is slipt down to peel the appendix loose from its bed on the Psoas muscle. Bringing it out of the wound we note it is as large as one's little finger, blood is dripping from its outer surface, and more blood is oozing from the place from which it was separated in the abdomen. We seize the cecum at the base with forceps, a second pair grasping the appendix a half inch above the first pair. I ligate the meso-appendix with fine silk, then with a thermocautery sliding in the groove between the blades of the forceps, sever the appendix in such a way that infection is impossible. The little forceps is of advantage in more ways than one. It holds the cecum and thus saves any undue handling of it with our fingers. Our Lembert sutures, which are whipt over the blades of the forceps, can be definitely placed; and when we withdraw the forceps from beneath them, we find that the little seam of tissue dessicated by the blades of the forceps folds in nicely as the Lembert sutures are tied. Any bit of the stump of appendix left is a possible source of infection; the appendix cut off and the wound sewed up is another possible source of infection. By this forceps heated to a blue heat by the cautery, any leakage or infection from the appendix or cecum is impossible. We sponge off the suture line with sponges wrung out of warm saline solution, and pull out the sponges which have been packt around the region of the work. We introduce this "purse-string" suture to bring the muscles together, unite the peritoneum, muscles and aponeurosis with cat-gut, tie our pursing suture, and we have practically guaranteed our patient against a hernia.

CASE II.—The second case will, I believe, prove very interesting, for the reason that he has well markt subjective symptoms of appendicitis, but there is absolutely no tenderness over McBurney's point. I have already mentioned at the college some cases where

*Abstract of a Clinical Lecture.

the appendix was ruptured at the extreme end and hung dangling over the iliopectineal line, discharging its contents into the bottom of the pelvis, and I think we may have something of the kind here. I make the incision as in the former case, separating the muscles (not cutting them as in the gridiron incision of McBurney), introduce my fingers, find the head of the colon resting over the iliopectineal line; a little traction reveals the fact that something is holding it. I pass the finger along the line of tension. Ah! here is the appendix, hanging well over in the pelvis, and blanketed over with a portion of the greater omentum. With some difficulty I separate the adhesions, bring appendix and omentum out thru the wound. You notice at once that it is ruptured. The opening is large enough to introduce a match, but the appendix is not as large as in the first case. We remove the appendix as in the former case, using the cautery between the grasp of two pairs of forceps, closing up the wound in a similar manner.

REMARKS.

The two cases are of interest; the first one because the appendix could be easily palpated, and the other because there was no tenderness in the right iliac fossa, the appendix being so far down in the pelvis that in the interval between the acute attacks there was neither muscular rigidity nor tenderness over the real site of disease.

They present you with instructive object lessons, which I am sure you will remember. First, I trust they will convince you of the vital importance of having all your medical "cures" CURED *de facto* by a surgical operation and by the definite aseptic technic which you have seen this afternoon.

Second, I trust it will convince you of the vital importance of operating upon patients during convalescence from the first attack, thus seeking to prevent that unnecessary 75 per cent of attacks of recurring appendicitis. I say during the convalescence from the first attack, for we should wait, when possible, until after the bowels have been thoroly evacuated, after the kidneys have rallied from the congestion due to the first attack, after the functions of secretion have regained their equilibrium which they have lost during the elevation of temperature incident to the acute inflammation.

There is another class of cases where the operation must be different from that you have seen to-day: Where the inflammation has gone on to suppuration and you have a well markt appendiceal abscess. In such cases you cannot always remove the appendix; it is not wise to hunt too far for an appendix. It is well to make the incision as far over to the side as possible and down to the peritoneum with curved scissors or crooked handled knife like the one I show you, plunging thru into the abscess low enough down so as to get good drainage. In such cases after evacuating the abscess we put in a drainage tube, pack around with gauze; and let me insist that in these cases, late during the convalescence from the drained abscess, that you make an incision directly into the peritoneal cavity, remove the appendix according to the technic I have shown you, separate such adhesions as interfere with the lumen of the small intestines especially, and thus secure your patients against that unwarranted 75 per cent of attacks of recurring appendicitis. I have been criticised for advocating these radical measures, curing all medical cases surgically; curing all cases, where abscesses have been opened, by the definite technic. I have also been criticised for not advocating the removal of every appendix as soon as the diagnosis can be made.

Dr. McRae, in his surgical oration before the American Medical Association, gave a mass of statistics which gave a mortality of 19 per cent operating regardless of the stage of the disease, against a fatality of less than 2 per cent where operations were made in the interval between the acute attacks.

PROGNOSIS.—As a matter of fact the prognosis in appendicitis will be governed by when, where, and by whom an operation is made. Shall we operate upon every case as soon as the diagnosis is made? Most emphatically, no. This would make every operation one of emergency, which is not the case. Consider well the three following points: (1) Is it time to operate, considering the stage of the disease; (2) may not operation be postponed until a more expert operator, with a larger experience, may be secured; (3) may the patient safely be removed to a special hospital. Again, operating when there is bloody serum about the appendix may necessitate a drainage tube and cause a hernia, which can be avoided by operating in the interval. Above all things, let me beseech of you, when called to an acute attack, to not use your hypodermic with morphine.

An ounce of whiskey in the rectum or two grains of sulphate of codeine, or both, will usually relieve the pain, and not lock up the secretions and bowels and obscure the diagnosis. If there is dullness over the colon, large quantities of warm water injected into the bowel, with the patient in the Sims or knee-chest position, with hot water by the stomach, are also of advantage. Hot fomentations, or flaxseed poultices (poultices at least twelve inches across and held in position by a bandage) will aid in giving comfort until saline purgation is ample. Moreover, in the sulphate of codeine introduced into the rectum, we have an agent which has a decided effect upon intra-peritoneal inflammation. With this line of treatment, which is in the reach of any physicians, I believe in the larger number of cases the inflammation will be arrested and that the pulse and temperature will be such as to justify the hope that an operation of expediency can be had later with a reasonable hope of 98 per cent of recoveries, instead of the 19 per cent of operations done during the stage of acute inflammation.

I also believe that better results are to be obtained when operation is made at a selected time, in a private hospital and by an experienced operator. Acute ruptured cases, and those in which a well-defined abscess can be detected, are the only ones on which the average general practitioner is justified in operating.

The good work of gynecological treatment of the insane is still being carried on at the London (Canada) Asylum, by Dr. A. T. Hobbs. According to the annual report of 1899, it is now some five years since this work was first introduced into that institution, where it has been prosecuted systematically ever since. Begun with some doubt and carried forward in a somewhat tentative character, it has now become a necessary branch in the treatment of the female insane in that institution. During the past year, 40 patients have been operated on. Of these, 14 have recovered, 14 are improved, 1 died, and so far 11 remained unimproved, tho it is stated that several of these latter have but just recently been submitted to operation, and there seems to be no doubt that several will either improve or recover completely. A summary of the work of the past five years, which embraces all the gynecologic work performed since its inception, shows that 217 patients have been examined, in 185 of whom organic disease of some one or more of the pelvic organs was found, thus leaving 32 of the number examined absolutely free from disease. Of these 185 patients, 171 have been operated upon, leaving 9 others to be attended to, while there are 5 the subjects of organic disease, considered unsuitable for operation. Of the 171 operated on, the pathologic conditions present (several often in one case) were 17 cases of dysmenorrhea or menorrhagia; 80 with disease of the endometrium; 90, subinvolution of uterus; 35, hypertrophied cervices; 44, lacerated cervices; 27, cystic cervices; 5, polypi of cervix; 14, uterine fibroid; 1, epithelioma of cervix; 1, sarcoma of uterus; 55, retroversion of uterus; 6, complete procidentia of uterus; 31, ovarian tumor, often with disease of the tubes; in 35 there were perineal injuries; in 1, rectovaginal fistula; in 1, ischiorectal fistula. This gives a total of 444 diseased conditions in 171 patients. The operations performed, often several in one case, were as follows: Curettage and divulsion, 132 times; operations on cervix, 53; suspension of displaced uterus, 50; ovariotomy, 22; hysterectomy, 21; perineorrhaphy, 26; laparotomy for tubercular peritonitis, 2; operation for hematoma of ovarian ligament, 1; myomectomy, 2—a total of 309 operations. As regards the after mental health, 70 patients recovered from their insanity; in 43 others there has been improvement, often very markt in the general health; in 54 there has been no improvement in the mental health. Thus it will be seen that 113 of the 171 who survived the operation (4 died as a result of it) either recovered their mental health or had it improved to a considerable extent. A further interesting part of the report is the average recovery rate, including cases improved, in the female halls of the asylum during the four years, 1892-1895, as with that during the four years from 1896-1899. In the former period, the rate calculated on the whole number under treatment each year, was 4 per cent; whilst for the four years after the operative work had become a factor, it rose to 5.55 per cent. It is strange, indeed, that other hospitals for the insane will not try the same methods!

Lott (*Charlotte Medical Journal*, April) describes a method of operating for rectocele which he thinks has certain advantages over others, tho not widely differing from them. It consists in making a triangular flap on the vaginal wall at the highest point on the rectocele, from the base of which two cuts are carried down to the point on each labium where apposition will re-establish the normal perineum. The space between these, excepting the triangular space mentioned, is denuded and the edges of the outer incision brought together by buried sutures fastened by perforated shot, making altogether a sort of a Y-shaped line of sutures. He thinks this the best means of attaining the four cardinal wants of the case, viz., repair of the perineum, taking the slack from the lateral walls, removing the rectocele, and supplying in its stead, in the posterior wall, a contracted, cicatricial column, with prong projections into the vaginal fornix, which most nearly restores the parts to their normal function and gives support to the organs above.

AMERICAN JOURNAL OF SURGERY AND GYNECOLOGY

—EDITED BY—

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The spelling found in this magazine is that voucht for by the most prominent educators of this country, and is recommended for general adoption.

ST. LOUIS, MAY, 1900.

EDITORIAL NOTES.

Indiana is to be congratulated upon the report of its State Board of Charities in favor of the establishment of a colony for epileptics. The colonization system has proven quite satisfactory in other States and Indiana should not be behind her sisters in measures tending to relieve or cure these unfortunate individuals. It is to be hoped the Legislature will promptly appropriate sufficient funds to make the colony a success from the very start. Every doctor in the State should speak to the legislator from his district in favor of such a bill.

Having taken this commendable step the State Board of Charities should follow by another of still greater importance—the appointment of a staff of gynecologists whose duty should be to examine the female insane of the State and local asylums, and perform such operations as may be indicated. The brilliant results obtained at the London Asylum in Ontario are so markt that operative relief of pelvic disease has become a necessity for every asylum for the insane in the land. With her competent operative gynecologists—as competent indeed as any in the world—Indiana should not delay.

A meeting of much import to the doctors of Indiana is that of the Mitchell District Medical Society, which convenes at West Baden Springs, July 12 and 13, under the presidency of Dr. W. V. Morgan, of Indianapolis. A rate of one fare for the round trip has been secured from the railroads and 25 per cent discount from the hotel rates. The secretary, Dr. U. H. Hon, of Bloomington, writes that an extremely interesting program is already assured, some of the most eminent men of the Mississippi Valley having promist to attend and read papers or open the discussions. Every medical man who can should take a few days' rest at this delightful resort, which is at its best in mid-summer, and help make this the most notable session of an always excellent society.

Indiana must be the ideal field for medical journals. At the meeting of the Board of Trustees of the *Indiana Medical Journal* for 1899 the report of the business manager showed all bills for 1899 paid and with no old debts. The *Journal* is to be congratulated upon this remarkable showing, as well as in the retention of Dr. A. W. Brayton as editor, and Dr. Geo. J. Cook as business manager, as under their management the *Indiana Medical Journal* has become one of the most interesting medical publications of America. The *Medical and Surgical Monitor*, of Indianapolis, too, bears every evidence of prosperity, and under the editorship of Dr. Samuel E. Earp is rapidly becoming a formidable, tho friendly, competitor of its older neighbor. Both deserve all the success achieved, and more.

An example which might well be followed by many other States has been set by Indiana in the establishment of a great medical library at the State Capital, where the State Medical Society may convene and its members profit by the books there to to be found. Even a few days once a year among the volumes of a great medical library is of vast help to the average doctor. It would pay every physician of the State a thousandfold to make an annual trip to the State Medical Library and spend a fortnight reading up on various subjects of interest in his daily life. Too few of us read enough—either of books or journals. A memorandum book of points to be lookt up at leisure is an unavoidable part of every physician's equipment; the leisure comes only when one leaves home. The State Capital and its library is the place to go to.

The old idea of "carrying coals to Newcastle" must take a back seat. It is reported that the notorious Mary G. Eddy, founder of "Christian Science," is slowly dying of cancer!

The editor of *Medical and Surgical Monitor*, commenting on a report of a death from chloroform, reported to that journal by Dr. Frank C. Ferguson, of Indianapolis, remarks: "In justice to all concerned, and for the benefit of futurity, an autopsy should have been conducted. This, I am informed, was refused by the relatives." What folly! Any physician practicing in a city can secure an autopsy at any time he may desire, with or without the consent of the friends; failure to secure consent never justifies a man in saying a post-mortem examination is impossible. All that is necessary is to say: "I shall not sign a death certificate without an autopsy. If you are willing to let me make it, there will be no publicity. If you refuse, I shall have the coroner make it!" Every city requires its coroner to make an autopsy on every corpse where a properly attested death certificate is not forthcoming; and if in this particular instance the certificate read: "Death from chloroform," the coroner should have investigated the matter, regardless of the standing of the doctor or the wishes of the friends. That is the law.

SURGICAL NOTES.

Dr. John E. Harris, of Bloomington, Ind., reports an interesting case of head injury to *Indiana Medical Journal*, April, 1900. The patient was a white boy, age 14, who became involved in a quarrel with a colored boy on the evening of July 4, 1898, being struck on the left side of the head, causing a compound comminuted fracture of the parietal and temporal bones, driving two fragments into the brain, lacerating the meninges and cortex, protrusion of brain appearing in wound. An anesthetic was given, the skull trephined, loose fragments removed, and deprest portions of bone elevated; wound was drest antiseptically and a rubber drainage tube inserted. The wound healed gradually, leaving him with loss of speech—the only word he could utter was "Ma." He retained the faculties of reading and writing. His speech improved slowly. This case is interesting from the fact that there was a compound comminuted fracture, culminating in a rupture of the meninges and laceration of the brain, the latter broken up and escaping from the wound, while fragments of the broken bone were imbedded in the cortex—giving as a psychological result the loss of speech, indicating the involvement of that center, with retention of the power of reading and writing, aphasia without agraphia being exceedingly rare. A point of more interest is the gradual evolution of thought expression in the form of speech, he having added up to this time quite a number of words to his vocabulary.

A great maker of epigrams is Dr. Jos. Eastman, of Indianapolis. One of his best sayings was his reply to a visitor to his elegant private hospital, who askt what material was in and how he cleaned the walls of his rooms. He answered promptly: "We have quit chasing germs on our walls, and are now hunting them under our finger-nails." The old adage that the qualifications of a surgeon should be "the head of an Apollo, the eye of an eagle, the heart of a lion, and the hand of a woman," is now supplemented thus: He must have his finger-nails cut short, and his hands surgically clean. It might be said a woman's hand is always clean; "society" clean is not "surgically" clean.

That patients do not get too old for radical cure of hernia is demonstrated by a case presented to the Toronto Clincial Society (*Canadian Practitioner*, March, 1900) by Dr. W. H. Pepler. The patient, 75 years of age, in 1898, while walking on the street felt something give way, and observed a swelling in the right groin. On examination by Dr. Pepler, a right inguinal hernia was found, and a truss was ordered applied. Several of these were tried for a time, but all proved failures, as the patient was miserable all the time on account of the continual falling down of the hernia. As he was anxious for a permanent cure, Dr. Pepler decided to do the radical operation, which he performed in May, 1899, assisted by Dr. Bingham. The canal was opened and the sac tied off and let back into the abdomen. The ring and canal were then closed up with mattress sutures. During the night of the operation the patient got out of bed to go to the closet. In the morning it was found that the stitches had broken away and the case really developt into an open operation. The wound was packt with gauze down to the ring, and it healed by granulation. The case went on without any further interest, and the patient is at the present time sound, and does not wear any truss, and has never had any discomfort. The points of interest are the age and the sound healing in this open manner.

New York Medical Journal of March 31, 1900, contains the history of a remarkable case in the practice of Dr. G. W. McCasky, of Ft. Wayne, Ind. It was that of a cerebellar tumor in a young woman, which presented some peculiar features. The patient lost her hearing for a period of three months, but about two months before death she began to have a free discharge of serous fluid from the right nostril, which ran a steady stream (or dropping) amounting to several ounces a day, and on the appearance of this her hearing returned. The tumor (as proven post-mortem) was a mixt angioma originating on the anterior margin of the left lobe of the cerebellum. A point of diagnostic interest in the case was the great intensity of optic neuritis of the side corresponding to the tumor. The patient died in a convulsion about three years after the first examination.

Another successful amputation at the hip by Wyeth's bloodless method is recorded in *The Physician & Surgeon* of December, 1899, by Drs. R. B. Baird and G. L. Cornell, of Marine City, Mich.

In the *Medical and Surgical Monitor*, of Indianapolis, April 15, Dr. J. A. Sutcliffe reports a remarkable case of fibroma of the neck in a girl of 12 years, as shown in this cut:

A side view below shows the extent of the trouble laterally:

It was of four years' duration and was growing steadily. On removal it was found to spring from the deep cervical fascia. The tumor weighed more than two pounds and presented the following appearance:

Examination showed it to be a hard fibroma. Recovery was perfect, but as will be seen by the photograph there is considerable

difference in the two sides of the face—a disparity which may disappear as time progresses.

Tuberculosis of the bladder is not very infrequent, and unfortunately by neither medical nor surgical measures can a cure be often effected, but nevertheless much may be done to relieve the patient's distress. Primarily, good hygiene, country or seaside air, etc., are of the first importance, and light exercise is also advisable. In acute cases temporary relief may be obtained by warm saline baths, mustard to the hypogastric region, warm water injections into the rectum, etc. The food should be light and easily digestible, and consist essentially of large quantities of milk. Cod-liver oil should be given in large doses, and benefit may also be obtained from the use of arsenic, creosote, opium, and belladonna for the pain, etc. These means are, however, often ineffectual, and local measures frequently must be adopted, more especially washing out the bladder so as to get rid of the pus and mucus, and injecting various substances, such as weak cocaine or opium, to relieve the pain, or antiseptic substances with the view of trying to interfere with the growth of the bacteria. Warm boric lotion, about from 3 to 4 per cent, is one of the most suitable fluids for washing out the bladder. Iodoform and glycerin often have been injected into

the bladder and left in, but the results are disappointing. Iodoform and vaselin, about six drachms of a 5 per cent mixture, has been strongly advocated by some French surgeons. Injections of nitrate of silver, which are of use in other forms of cystitis, almost always do harm. The instillation of weak sublimate solution (1 in 1000 to 1 in 5000) has been employed, and is much praised by some. Cocaine and opium injected into the bladder are very transient in their effects, and must be very carefully used, as they are apt to be absorbed. Benzoic acid taken internally helps to keep the urine sweet. Pills of iodoform in half-grain to one-grain doses, tincture of buchu, triticum repens, etc., may be employed. Attempts have also been made to increase the capacity of the bladder by gradual distention with fluid. The operative interferences consist in opening the bladder and draining it, in attempting to remove the tuberculous ulcerations, or in applying antiseptic substances to them, but in most cases afford only temporary relief.

In *Medical and Surgical Monitor* of November, 1899, Dr. R. B. Wetherill, of Lafayette, Ind., reports an appendicular abscess which evacuated itself thru the pleural cavity. The patient, after a long illness, presented symptoms of pyothorax when seen by Dr. Wetherill. An incision was therefore made between the seventh and eighth ribs on the right side, and a large drainage tube inserted. The fluid which escaped was thin and ichorous, with an odor decidedly fecal, and in quantity sufficient to fill an ordinary slop-jar. The amount of effusion being evidently greater than the pleural cavity could contain, and the odor suspicious, the abdomen was again examined, when it was found that the blubbering sound at the wound caused by the ingress and egress of atmospheric air with respiration was transmitted to the abdomen, and could be distinctly heard with the stethescope placed over the ileo-cecal region. The incision in the chest relieved dyspnea to a considerable extent, but the patient failed rapidly and died in twenty-four hours. As the author remarks, such a case as this carries with it an important lesson, teaching, as it does, the danger of delayed operative interference. An early removal of the appendix is accompanied with a minimum amount of risk, while after the purulent accumulation has become diffused the mortality rises to an alarming extent. It is safe to consider with suspicion all cases of "typhoid" where the symptoms are severe and the onset sudden, and especially when the fever and pain appear at the same time, and if the rule be followed to operate without delay as soon as a diagnosis of appendicitis has been establisht, the mortality of this disease will undergo a markt reduction from the present figures, as in nearly every instance the abdominal cavity will be opened before the formation of an abscess, and before the development of "typhoid symptoms," and the patient will be saved the dangers of general septic infection which are so liable to operations in the later stages.

Dr. Joseph Eastman, of Indianapolis, says, concerning strangulated hernia, that, as a rule, no incarcerated or strangulated hernia should ever be reduced by taxis. The teaching in works on surgical anatomy and in the surgical text-books as to the cutting with a button-pointed knife, so as to nick the band of constriction, should all be rewritten. In most of these cases the abdominal surgeon should make an incision free enough at the time of the incarceration or strangulation to diagnose the condition of the intestine he puts back into the abdomen; the greater omentum as well, this being not infrequently associated in the hernial protrusion. The omentum, by twisting or adhesion, may maintain its constriction of a loop of bowel after the same has been put back in the abdomen. The old teaching with regard to taxis and cutting with a button knife is a relic of the time when the peritoneal cavity was the *noli me tangere*, and is repulsive to the mind of men who have hundreds of times made and closed much larger abdominal wounds than it would require to make sure of the condition of the hernial viscera, to return these to the abdomen, and to cure the hernia by Halstead's or some other radical operation. The exception to this rule is only when old age or extreme debility is present. Any operation which closes the internal ring and prevents the engaging of the omentum and intestines in the inguinal canal will almost surely cure the hernia. Unfortunately, however, in hernia of any considerable duration, the internal and external ring have been dragged together and are as one opening, the inguinal canal having been obliterated. For this reason, and many others, the successful cure of hernia by radical operation yields the best results in the hands of those familiar with the anatomy and surgical technic of the abdominal wall.

GYNECOLOGICAL NOTES.

Dr. John O. Polak, of New York, according to *Medical and Surgical Monitor*, has a peculiar case in a woman who came under his charge in January last. An abdominal section for ectopic gestation had been performed the previous summer. Examination showed an abdominal scar with evidence of previous suppuration; a hernial impulse was felt at its lower angle. There was a purulent discharge from the uterus, which was in a normal position with the fundus fixt. A mass, which seemed to be a displaced ovary, was felt on the left. Celiotomy was advised. The patient was etherized and the cervix dilated for curetting. A Wylie instrument was used, followed by a Goodell. The latter went thru the uterus near the right cornu. The curet was immediately withdrawn after recognizing the condition, and the uterus packt with gauze. The patient had a distinct chill lasting ten minutes, and the pulse went up to 160, and was almost imperceptible. She was placed in the Trendelenburg position, the abdomen opened, and a quart of hot saline solution poured into the cavity, much improving her general condition. The intestines, matted together by dense adhesions, covered the uterus and were torn twice before the uterus could be brought into view. Five heavy braided silk ligatures were lying in the uterine rent, evidently suppurating their way thru the uterine wall. Both ovaries and tubes were absent, the supposed left ovary being a localized mass of exudate. The patient's condition forbade hysterectomy. The ragged edges of the uterine tear were trimmed, a strip of iodoform gauze sewed to that in the uterus, and pulled thru into the vagina. The uterus was packt from above, and the wound closed with catgut. The intestines were repaired, another quart of hot saline solution left in the abdomen, and the abdominal wound closed, leaving two strips of gauze for drainage. Recovery was speedy. The accident was undoubtedly due to weakening of the uterine muscle in the attempt to throw off the infected silk ligatures via the uterus.

Discussing the subject of prolapsus uteri, Dr. John B. Deaver, of Philadelphia, condemns the Alexander operation and intra-abdominal shortenings of the round ligaments and vaginal hysterectomy unless there is a pathologic lesion warranting it; he advises vaginal fixation. When the prolapse is complete, anterior or posterio coloporrhaphy, or both may be necessary. The cystocele is corrected by the removal of a sufficiently large oval flap, denuding the mucous membrane and submucous tissue, by which the muscular coat of the bladder is exposed. The incision extends from immediately behind the meatus urinarius to the cervix uteri. Two rows of catgut sutures appose the edges of the incision, the deeper taking the submucous and the muscular coats of the bladder, and the superficial the mucous membrane. The denudation of the anterior vaginal wall in the correction of the cystocele, and of the posterior vaginal wall in the repair of the torn or reflext pelvic floor, is made with a scalpel. The repair of the anterior vaginal wall is the first step in the operative technic; when this is accomplisht the rubber gloves worn are discarded and a new pair, previously sterilized, put on. The next step is the fixation, and, lastly, the perineum is restored.

A summary of an analysis of 100 cases of cancer of the breast, by McWilliams, is given in *Journal of American Medical Association*, May 12. Trauma was present in 44.6 per cent of the patients; 71 per cent were married; 66.6 per cent had borne children, the average number of each, 5; pain was present in 56.2 per cent; nipple retracted in 45.2 per cent; right breast involved in 51 cases, left in 49; axillary glands palpable in 48.9 per cent, cancerous by the microscope in 78.6 per cent. The average age was 49 years, 6 months, 26 days. The mortality of operation was 4 per cent; average length of time in hospital, 20 days; prolongation of life for one year resulted in 59 per cent, for two years in 36 per cent, and the cured—no recurrence at end of three years—34 per cent. Recurrence took place in one year in 21, in two years in 28, locally in 15, in the lung in 6. The average length of time in recurrent cases from operation to death was 1 year, 2 months 20 days, that from the period of recurrence to death, 5 months.

Grandin, of New York (*Journal of American Medical Association*) finds that while a great majority of patients with puerperal infection recover with minor operation, about 1 per cent die, notwithstanding operative treatment, unless it is employed early. The importance of early diagnosis, therefore, is clear. When septic symptoms appear in the puerperium, the patient should be most thoroly examined, preferably under anesthesia, to differentiate saprophytic and streptococcic infection. Sapremia yields to local operative treatment, unless too long delayed or complicated by streptococcic infection. When the clinical phenomena are of low grade, and the pulse rapid in proportion to the temperature, it is a warning of general systemic infection. Sapremia having usually been ruled out and other disturbances such as pneumonia, urinary toxemia, etc., being excluded, exploratory abdominal section is indicated for positive diagnosis. By this it is possible to remove the infectious foci, before the system has been involved and the case become hopeless. The streptococcus infection, however, is so rare that it is only exceptionally that abdominal section is required.

According to *Medical and Surgical Monitor*, Ritter argues that many cases of dysmenorrhea are amenable to suggestive therapeutics, and reports an illustrative case, in which, by a sort of hypnotism combined with massage, he completely relieved an obstinate case. He says that whenever he has failed in material measures, he has never been disappointed in obtaining very markt relief from suggestion, and generally cure of his patient.

Wiener claims (*Medical and Surgical Monitor*) that (1) cancer of the uterus should be diagnosed with the microscope. (2) Cancer should be suspected in women of all ages—in virgins, in nulliparæ, as well as in multiparæ. (3) Atypical hemorrhages should always arouse suspicion, even at the time of the menopause. The sooner women, at the time of the menopause, are imprest with the fact that the menopause itself is responsible for very few of the symptoms from which so many of them suffer at that time, and the sooner they learn that so many of their sex are losing their lives on account of neglected slight hemorrhages or discharges coming on during or after the menonause, the sooner we may hope to cure more early cases of uterine cancer.

The editor of *Indiana Medical Journal* thus comments on Belfield's remarks on sterility. Dr. Belfield, of Chicago, writing on genito-urinary diseases in the fourth volume of Hare's *Progressive Medicine*, says: "The researches of these last few years have proven the impossibility of identifying the gonococcus by its morphological and tinctorial qualities alone, and by consequence they disclose the uncertainty of the conclusions drawn from all such work. Noeggerath's doctrine as to the persistence of gonococcus infection is being strongly disproved by Gall and others, who claim that the microbe persists in only a small per cent of cases. The current notions of the large percentage of sterility following gonorrhea are also shown to be greatly exaggerated." Here are two considerations: First, that form and color reaction of the diplococcus does not prove it to be the infective organism of Neisser. To the second conclusion sanctioned by Dr. Belfield, that the large percentage of sterility following gonorrhea is greatly exaggerated, many general practitioners have had numerous confirmatory instances in their practice. The present writer observed in a practice of eight years in a neighborhood of railroad and shop workmen, among whom this disease was very common, that after both husband and wife were infected and cured by mild measures of urethral cleanliness and proper interior medication, that children were born to such parents; and such is the testimony of hundreds of practitioners not specially expert in the practice of gynecology.

An interesting lecture on "Diffuse Pelvic Inflammation" appears in *Indiana Medical Journal* from the pen of Dr. L. H. Dunning, Professor of Diseases of Women in the Medical College of Indiana. He says that it is indeed the chief gross lesion peculiar to women; and that 10 per cent to 15 per cent of the suppurative variety end in death. A large proportion of the remaining number results in chronic invalidism. It is a complex lesion, involving in the inflammatory process structures of different histological make-up, viz., the endometrium, the Fallopian tubes, the ovaries, the pelvic cellular tissue, and the pelvic peritoneum. When two or more of these structures are involved in the inflammatory process, we have diffuse pelvic inflammation. It begins, as a rule, in the endometrium as a result of microbic infection, and spreads in five different ways. (1) By continuity of structure. The endometrium is attackt first, extending thence to the mucosa of the tubes, thence to the ovaries, the pelvic cellular tissue, and the pelvic peritoneum. According to the intensity of the inflammatory process, it extends with greater or less rapidity into the deeper structures of the uterus, tubes and ovaries, producing metritis, salpingitis and ovaritis, cellulitis and pelvic peritonitis. These organs become swollen by transudation of serum and infiltration of round cells, and occasionally are found small foci of pus. (2) By contiguity of structure. In this case the development and spread is somewhat different. usually it occurs after abortions, when septic shreds or masses of placental or decidual material are left. There is a rapid multiplication of microbes and their toxines, the deeper structures being invaded primarily. Finally the process reaches the serous coat, the pelvic cellular tissue and the pelvic peritoneum, and suppuration may result. The tubes may be attackt from without instead of from within in this form. The results are quite different in the two forms. Where it extends by continuity, if the infection is purulent, the ends of the Fallopian tubes in a little while will be closed, the secretions retained, and pyo-salpinx results. When the inflammation approaches from the outside, it is only late in the trouble that this may result. The idea of calling all these cases pelvic cellulitis is erroneous. Sometimes the inflammation in intensity is greatest in the ovaries, at other times in the tubes, and at others again in the endometrium. Pelvic cellulitis results in those cases which tend by contiguity of structure. It is in these cases that we find the abscesses with the acute septic symptoms appearing within two weeks after abortion. (3) By development along the line of the lymphatics. Before it can do this there must be considerable infection of a purulent character in the uterus itself, as after abortions, or after parturition. The focus is within the uterus, usually extending to the middle coat, where the lymphatic channels are found in great profusion. This infection is taken up by the lymph channels, sometimes being arrested in the ovaries, or extending to the peritoneum. In this form the ovary is most frequently involved. From this new focus the surrounding structures become involved by continuity. (4) By tubercular infection. The tube is the structure most frequently attackt by this form. The process extends to the outer extremity, thence to the peritoneum and other structures. The symptoms and signs are similar to those of the other forms. (5) It may develop as a pelvic peritonitis from within and extend by contiguity of structure and involve all the structures except the endometrium. It may be induced by an appendicitis or a peri-typhlitis, the rupture of an ovarian abscess or an ectopic gestation. The microbe found is usually the colon bacillus. The course of the disease is very distinct, and can scarcely be mistaken, tho mistakes are made by the general practitioner—due, as I believe, to the fact that the disease is not considered as a whole. The symptoms are, a chill followed by a fever, localized pain, patient lying with the knees drawn up, pulse small and rapid. Physical signs are: First day, tumefaction of uterus and surrounding tissue, exquisite tenderness, rigidity of the abdominal muscles. Second day, a little hardness surrounding the uterus, fever higher, uterus almost immovable, great pain. Ovary and tube will be enlarged and infiltrated. Third day, there is a beginning distinct hardness surrounding the uterus; uterus fixt. Fourth and fifth days, all anatomical landmarks wiped out, except the cervix, which is firm and unyielding. Much induration surrounding the uterus—the deal-board feel. If the trouble follows abortion, abscess will almost invarably follow later. There will be a tumor on one side. Some of the induration has past away; there may be fluctuation; the tumor comes down lower and lower. There now is a pyo-salpinx, or a tubo-ovarian abscess, or, if the uterus is pusht far to one side, the abscess may be in the folds of the broad ligament. If no abscess forms, the inflammation has not been very virulent, and at the end of two weeks the uterus again becomes slightly movable, the hardness disappearing. Low down in the pelvis will be found the tubes and ovaries in a mass, bound down by inflammatory adhesions. There is a markt tendency of these cases to recur. The dominating feature of all these cases is pelvic peritonitis. The suppurative cases result in abscess. The serious cases result in displacement of organs, with adhesions.

A possible cause of the increast frequency of tubal gestation is suggested by Dr. L. S. Alexander, of St. Augustine, Fla., who says that in many cases of tubal pregnancy he has, on close questioning, obtained a history of attempted abortion by drugs. The attempt has been almost invariably made immediately upon the non-appearance of the desired menstrual flow (conception being feared), to establish the catamenia by the use of oxytocic drugs. The action of these substances in contracting the circular muscular fibres prevents the descent of the fructified ovum, and the tubal pregnancy, followed by rupture, results. In the South a favorite combination for this purpose is a mixture of cotton root and ergot.

Dr. Howard Lilienthal, of New York, protests seriously against the now too frequent catheterization of the ureter in the female. He thinks that while the value of catheterization of the diseased side is great, that of the other is perilous and hardly justified by the needs of the ordinary case. In some patients the kidney may be unmistakably palpated, in others the mouth of the ureter may be inspected with the cystoscope and when these means fail, at the time of the contemplated nephrectomy, a small incision can be made which will permit of the ocular demonstration of the condition of the other kidney without serious additional risk. If catheterization of the other ureter is practist it is by no means certain, as Wossidlo says, that the kidney which functionates normally before nephrectomy will continue to do so afterwards. After all, Harris's urine segregator is preferable in most instances to the ureteral catheter, and cannot possibly lead to trouble in a healthy ureter or pelvis of the kidney.

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Cough Sedative, Antispasmodic and Analgesic—Geo. Brown, A. M., M. D., Eye, Ear, Nose, Throat and Lungs,—Atlanta, Ga., says: "In epidemic bronchitis and all the various allied laryngeal affections, codeine is a most valuable remedy for relief for the harassing cough and pain, and when combined with antikamnia the analgesic effects are harmlessly emphasized. This combination is best administered in antikamnia and codeine tablets. No more favorable combination could be had in the cough of phthisis and chronic bronchitis. This is abundantly attested by clinical data which show the combination to be the best succedaneum for opium.

"Another advantage of codeine over morphine, one of special value in bronchial catarrh, is that the patients not only cough less, but also expectorate more easily than after morphine. The cough-dispelling power of codeine is such as to make it indispensable in phthisical patients, and a point of great importance in these cases is that it does not impair the appetite or digestion, and can therefore be used uninterruptedly for months."

The Medical Review, March, 1900—*Medical and Surgical Review of Reviews*, London, Eng.

Although antikamnia has attained well deserved popularity in America and on the Continent, it has not been used in this country so extensively as it might be with advantage. Its therapeutic value has been attested by great numbers of up-to-date practitioners and its utility *wherever there is pain or pyrexia* has now been as firmly established as the Rock of Gibraltar. As a rule we do not place much confidence in the average medical testimonial but the glowingly favorable reports as to the value of five-grain antikamnia tablets published by prominent physicians and in medical journals of high repute, recording such numberless and undoubted instances where this drug has been of signal efficacy in practice, have established the sound therapeutic position and value of antikamnia entirely beyond the pale of dispute. Experience gained by merely a few cursory observations has but little value, but antikamnia has now been so long and so extensively used by the vast majority of medical men that its efficacy has been tested beyond all peradventure.

Dr. Edwin Geer, in *The New York Medical Journal*, speaks very highly of it in affections of the throat and chest. In cases of incipient pneumonia, especially where cough is troublesome, he has for some time adopted the plan of treatment following: If constipation is present he gives calomel and soda to open the bowels freely, sometimes followed by a saline purgative. He then gives antikamnia and codeine tablets—containing four and three-fourths grains of antikamnia and one-fourth grain sulphate of codeine. The action of the codeine is synergetically beneficial. Unlike morphia it does not arrest secretion in the respiratory and intestinal tracts, while it has a marked influence on inflammatory processes. Neither is it unsafe or uncertain in action, like heroin, the new morphia derivative.

Dr. James Braithwaite, writing in the *London Lancet*, comments favorably upon antikamnia as an analgesic. Dr. Braithwaite's observations have been verified by numerous clinical reports *(The Laryngoscope)*. The advisability of combining antikamnia with codeine in the treatment of neuroses of the larynx, coughs, and bronchial affections, seems to be fully established.

PSEUDO-LEUKEMIA—A REPORT OF TWO CASES.

BY A. H. OHMANN-DUMESNIL, A. M., M. D., ST. LOUIS, MO.

Among the affections of the lymphatic system there is perhaps none which is more obscure than pseudo-leukemia. The small knowledge which is at present possesst by the medical profession in regard to the lymphatic system and its diseases is in great part responsible for this. The fact that, after much painstaking effort on the part of anatomists, so little has been definitely establisht concerning the lymphatic system, may in great part account for this lack of knowledge in regard to the diseases to which it is subject. What is known is that pseudo-leukemia is caused by tuberculosis, leprosy, syphilis, elephantiasis Arabum and perhaps some other conditions, each one in turn being dependent upon some specific cause.

No attempt will be made here beyond narrating two cases which not only improved, but of which one was completely cured in a short time. Whilst one bears a great resemblance to Hodgkins' disease, the other would not lead to any idea of the sort. In fact, in neither one was the thought entertained that a true example of this trouble existed, altho there was some little doubt in regard to this matter in the mind of the writer. The lymphatic indication was present, and this was certainly sufficient. Besides this, blood examinations confirmed the diagnosis, and, with this for a foundation, treatment was inaugurated, with complete success in one and improvement in the other.

The following two cases will perhaps be found more interesting as illustrative both of the condition and of the treatment than a long dissertation on the subject would be, and for this reason they are given here. It will be noted that one was much more severe than the other, and did not yield as readily.

CASE I.—Miss L——, a well-developt and well-nourished blonde of 16, applied to me for the treatment of quite a large tumor of the left side of the neck, situated at the border of the ramus of the jaw and extending down some three inches. In its horizontal diameter the tumor measured about four inches, and was more or less nodulated and nearly two inches thru. It had been some time in growing, and the physician in her town called it scrofulous, and proposed excising it. As she refused this method, she was referred to me for advice. Upon examination of the family history, the anamnesis, and direct examination of the tumor, tuberculosis as a possible cause was rejected. A drop of blood under examination showed the trouble to be pseudo-leukemia. Acting upon this, the treatment ordered consisted of the following:

℞ Iodo-bromid calcii co. (Tilden)----------ʒxvi
Sig.: A teaspoonful in water four times a day.

In addition to this the patient was ordered to rub in well the following ointment:

℞ Tinct. iodini co----------ʒj
Ung. aquæ rosæ----------ʒj
M.
Sig.: Rub in twice daily.

After two weeks of this treatment, a perceptible diminution in the size of the tumor could be made out on mere inspection. The treatment was continued, and in about two months there was no vestige left of the tumor which had existed. An examination of the blood showed it to be normal. The condition of the patient was excellent and it has remained so. To-day, after a lapse of over three years, she continues healthy, and there has not been the slightest indication of a return of the trouble.

CASE II.—Mr. R——, a man already past 50, consulted me in regard to a trouble which had annoyed him for quite some time. He complained of a large number of varied symptoms, which were all referable to one cause. He had enormously enlarged lymphatic glands in the groins, which were so interwoven that they presented one large mass on either side. Enlarged as well as indurated glandular masses existed in the axillæ, upon both sides of the neck and along the right sterno-cleido mastoid muscles. Much complaint was made of an "asthma" which annoyed the patient very much. This and the failure to relieve him had made him very weak. The condition was determined to be pseudo-leukemia and the difficulty in breathing caused by the lymphatic tumors in the chest cavity. Acting upon these findings, the following was ordered:

℞ Iodo-bromid. calcii co. (Tilden)----------ʒxvj
Sig.: Two teaspoonfuls in water four times daily.

For external use the following ointment was ordered applied to the enlarged masses twice daily:

℞ Tinct. iodini co----------ʒiiss
Ung. aquæ rosæ----------ʒij
M.
Sig.: Apply thoroughly twice a day.

In a very short time the glandular masses softened. In a few weeks respiration became easier and soon thereafter it was normal. The patient complained of weakness and was given Vin Mariani, which aided him considerably. In order to accentuate the action of the remedy he was taking, he was given arsenauro in ten-drop doses after each meal. At last accounts he was doing well.

Such is a brief outline of two cases of a trouble which is acknowledged to be most difficult to relieve, let alone cure. Were examples of pseudo-leukemia more numerous, a line of treatment might be formulated which perhaps might prove specific. This not being available at present, and knowing well the good effects of iodo-bromide of calcium upon the lymphatic glandular structures, I employed it with the good results recorded above. It is a safe and reliable remedy, and its worth and value have been fully demonstrated in a large number of conditions which require an alterative of undoubted strength and virtue.

The two cases which have been outlined above are such as to suggest the possible value of this remedy in tubercular glands. It is well worthy of a trial, as it seems to have an elective affinity for lymphatic glands, and by its action upon them may so act upon the tubercle bacilli as to render them innocuous, if it cannot destroy them. In one case of strumous glands of the neck in a girl which the writer treated it acted well, altho it required some considerable time to effect a cure, which seemed absolute, altho it might only have been apparent. For six years there was no return, and then the patient passt out of sight, having removed from the city.

THE TREATMENT OF GENERAL DEBILITY.

BY ROBERT C. KENNER, A. M., M. D., LOUISVILLE, KY.

In most of the examination blanks used by life insurance companies the question is asked if the patient has ever been ill of "general debility." Now, we may examine the index of a great many works on the practice of medicine and fail altogether to find this title among the names of diseases.

This should not convince us, however, that we will not have to encounter in our practice a condition which is very aptly termed "general debility." While I am not prepared to say that there is a distinct disease—having a fixed pathology which can be called by this name—I say however, the term general debility is appropriate and covers a systemic condition which is commonly seen by practitioners. This condition is a result of many disease processes. It is a natural sequence of chronic diarrhœa which is profuse. It is likewise a sequence of any disease which tends to lower the general health. The patient who is just recovering from typhoid fever or pneumonia has, unless the attack has been very mild, general debility—a condition in which his system in generally debilitated.

Dyspepsia, by interfering with proper nutrition, may produce general debility. I may say in general terms that general debility is the result of any disease, acute or chronic, which lowers the general systemic nutrition.

Syphilis, anæmia, tuberculosis and other diseases are attended in their unfolding with a general debilitated condition of the body, but not until these diseases have progressed appreciably do we see the system generally debilitated.

The treatment of general debility when that is the result of anæmia or syphilis, or any disease which is associated with it, must of course, be in the main that of the causative disease. The treatment, however, of syphilis alone will not answer when there is general or partial debility associated.

It is the purpose of this article to point out the general principles upon which the treatment must be conducted in order to attain the best results.

The best remedies are those which increase the appetite and assist digestion, and which contain a quota of phosphorus. That phosphorus is necessary in order to attain good results we will find nearly all authors agreed. The phosphorus, however, must be small in quantity and exhibited in such a way that it will be appropriated by the system. Another matter to be looked after, too, is this: These patients must not be given too much medicine. I endeavor to have the patient have only one bottle of medicine. This is feasible, too, unless the patient is to be treated at the same time for syphilis, or some other disease which cannot be reached by a general systemic constructive tonic.

In supplying the demand of these patients for a remedy, Miller's Phosphorized Elixir Gentian will be found a remedy capable of bringing results of a satisfactory character. It is an elixir of gentian, sherry, phosphoric acid, taraxacum, glycerine in combination with such aromatics as will give the preparation an agreeable taste. This is best given in doses of a dessertspoonful after each meal, mixed with water.

This remedy increases the appetite and digestion of these patients and tissue repair begins at once. Many cases of general debility will yield to this remedy, and, in fact, it is all that is needed where there is no associated disease like syphilis or tuberculosis.

In those cases of general debility consequent upon impartial recovery from acute disease, and those consequent upon an atonic state of the system it will generally meet all the demands of the case.

When, however, there is a constitutional disease associated with the general debility we shall have, besides Miller's Phosphorized Elixir Gentian, to give the appropriate remedy. If the disease is syphilis then appropriate antisyphilitic remedies are to be exhibited. The efficiency of these remedies can be increased, I think, by the exhibition of Miller's Phosphorized Elixir Gentian as a general tonic.

I subjoin a few clinical histories which illustrate the treatment here offered:

Mr. ———, aged 47. This man had an attack of influenza which kept him down several weeks. After getting up he had a most indifferent appetite, was nervous and dyspeptic. He had fallen off very greatly, and had no spirit for any undertaking, and life was dull to him. He was put on Miller's Phosphorized Elixir Gentian in doses of a desertspoonful after each meal. On this he began to have an appetite after a few days, and in ten days he felt a great deal better every way. His strength was returning and he had an appetite. From this time on his improvement was gradual. At the end of three weeks he was practically well—he had a good appetite, was greatly improved in flesh, and was in fine spirits.

Miss ———, age 22. This young woman had just recovered from an attack of typhoid fever which had left her weak and without appetite, and most nervous and melancholy. She was put upon Miller's Phosphorized Elixir Gentian in doses of a desertspoonful three times daily. This began to give her relief in a week, and her recovery was rapid. She had an excellent appetite and digestion after a week's employment of the agent.

Mr. ———, aged 49. This gentleman, as a result of chronic intermittent fever, was in a state of general debility. He was given appropriate remedies to correct the malarial element, and he began to take Miller's Phosphorized Elixir Gentian as in the above cases. This patient got along well, making a complete recovery in four weeks.

I could give other cases, but these will, I think, serve to show the value of the treatment here advocated.

FOR CEREBRO-SPINAL MENINGITIS.

I have prescribed Peacock's Bromides and found it to be one of the finest and most reliable remedies ever produced. Used it in my practice and found it very beneficial in cases of "Cerebro-Spinal Meningitis" of the most severe attacks. It does not only help in restoring the brain functions, but helps greatly in reducing fever. Will also state that Peacock's Bromides can be used in cases where "Nervous Attacks" are most readily. I will close by stating that I will still continue its use wherever it be indicated.

Louisville, Ky. ROB'T E. McDONOUGH, M. D.

I will state that I took Seng myself for stomach troubles and found it to be an excellent preparation, corrective of all dyspeptic symptoms and a builder-up of the system.

Keysville, Fla. D. M. BLUE, M. D.

STIMULATING, BUT NOT NOURISHING.

Some one was arguing with Dr. Delano, of Evanston, the other day, and suggesting that he could not believe but there is some nourishment in alcohol. "Can you suggest to me," said he, "anything that is stimulating, but not nourishing?"

"Certainly," replied our prohibition friend, "sitting down on a wasp, for instance."—*Journal of Med. and Science.*

FOR ULCERS.

CASE 778.—Dr.——— writes: I am using Protonuclein Special Powder on a case of ulcer of the leg which has been treated for two years. The ulcerated area is on the back of the leg and consists of same half dozen ulcers, each from 1 to 2 inches in diameter, the whole area being 6 to 8 inches. I have been dressing the ulcer for about two months, using every means that two years' experience in the men's surgical department of the —— Clinic could suggest. The ulcer had not improved one bit. I began using Protonuclein Special Powder on March 3d. The skin is closing in from all sides as the ice closes in from the edges of a vessel of water on a cold night. The result is simply astonishing.

FOR GRIPPE AND BRONCHO PNEUMONIA.

CASE 775.—Dr.——— writes: I have used Protonuclein in a variety of conditions and with uniformly good results. In Grippe and Broncho Pneumonia it has given surprising results. I know of no remedy that takes hold of bad cases of Broncho Pneumonia in children as quickly and certainly as Protonuclein does.

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PULMONARY PHTHISIS.

Dr. Manges, Professor of General Medicine, New York Polyclinic (*New York Medical Journal*, January 13th and 20th, 1900), has contributed a second report on the therapeutics of heroin based upon a thorough analysis of the extensive literature, as well as upon a personal experienee of 75 cases and reports of 416 cases contributed by other physicians. With reference to the use of the drug in cases of pulmonary tuberculosis, he says: "In pulmonary phthisis, acute and chronic, heroin found its largest field for usefulness, and but few correspondents reported results which did not substantiate the contention that, taken all in all, heroin is distinctly superior to codeine in most cases, and to morphine in many. It fulfills more indications than either of them, since it does more than to simply allay the cough; it stimulates respiration, removes the oppressive sensation of dyspnea, promotes sleep, frequently lessens or prevents night sweats, and even at times reduces the evening rises of temperature. Moreover, it is less constipating, and the tendency to habituation or increasing dose is far less than with all other opiates."

HEMORRHAGE IS IMPOSSIBLE.

I am much pleased with the Funis Ring Applicator and Rings. All oozing from the raw navel stops at once and hemorrhage from the severed extremity is impossible.

Dunnville, Ontario. A. M. CLARK, M. D.

NATURE'S NEEDS.

A brief consideration of what may be termed the physiology of disease will throw much light on the subject of the needs of nature in the period following the subsidence of the symptoms.

Symptoms may be said to be intensified physiological functions accentuated to such an extent as to constitute abnormalities. This is true of fever, pain and the whole host of symptoms ascribable to special organs and tissues. Emaciation and nervous exhaustion ensue because the processes of disease, requiring as they do fuel for increased oxidation, deplete the patient of nervous force and tissue structure. Nature's method of repairing waste—by food—is prevented, because the digestive organs share in the general enfeeblement consequent upon disease. The patient has neither the inclination to eat or the physical powers necessary to digest and assimilate food.

It is in just this class of cases that the restorative effects of Gray's Glycerine Tonic Comp. are most pronounced. Because of its alterative, tonic action upon the gastric mucous membrane, it takes hold of the dormant, torpid nutritive functions and stimulates them to normal physiologic activity. Appetite is engendered, atonicity of the digestive functions is abolished, and the patient is able to eat, digest and assimilate a sufficient amount of food to replace waste of tissue, impoverishment of blood and depletion of nervous force. It thus duplicates and reinforces Nature's recuperative powers; hence the value of Gray's Glycerine Tonic Comp. in canvalescence from la grippe, typhoid fever, malaria, pneumonia, etc. It can always be relied upon to effect the desired results in all forms of anæmia.—*The Purdue Frederick Co., 15 Murray St., New York.*

PROTONUCLEIN IN CANCER.

Case 763.—Dr.———writes: Protonuclein Special Powder is the greatest healer of almost anything. I use it in large quantities in healing cancers, and find it all that is claimed for it.

THE TREATMENT OF CYSTITIS AND PROSTATITIS.

Dr. Richardson, of Denver (*Medical Review*, February 10, 1900), states that about twelve years ago he commenced treating cases of cystitis and other diseases of the genito-urinary organs with injections of iodoform. Although this treatment proved of value it was quite often attended with considerable irritation and even abscess formation. Later he substituted europhen for iodoform, and has since obtained much better results without any of the irritating effects of the latter. The europhen was found to rapidly yield its iodine in the presence of urine, thus maintaining a constant germicidal effect upon the infected parts. Dr. Richardson's treatment in subacute cystitis consists in injecting, with a special syringe, a mixture of europhen in pure olive oil, 10 grains to the ounce, into the bladder every other day. In place of the olive oil an ounce or an ounce and-a-half of distilled water, with or without glycerine, may be employed. From three to six treatments usually cure a case of subacute cystitis, while in cases of chronic prostatitis, with urethral discharges of years' duration, and chronic gonorrheas of long standing, excellent results were also obtained. The position of the patient during the treatment is flat on the back, with knees drawn up, and he should remain in this posture for at least twenty minutes, the fluid being retained as long as comfortable. Even in cases of severe cystitis, attended with dribbling of urine and great discomfort, the injections of europhen speedily relieved the pain and tenesmus. The cases reported comprised chronic gonorrhea, and prostatitis and cystitis of various origin.

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